

A free world education eBook

CASEBOOK OF BIBHAS DE

KIP THORNE SATYRICON

*When an intellectual deceives mankind from a noble platform,
everything about him gets placed in public forum*

Heroizing tomes were penned about Kip Stephen Thorne.

Our planet was illumined by the brilliance of Thorne.

Great gold has been bestowed on Thorne.

Moviegoers worldwide were wowed by Thorne.

After such adoration, the world has a right to know:

What did Thorne do on Pedo Island?

Why has Thorne's vaunted moviemaking stalled?

Why does physicist Throne peddle packaged nutrition?

Why is nobleman Thorne subject to public humiliation?

Satyricon [sa-tir-i-kon] [SHOW IPA](#)

noun

- 1 a satirical novel, interspersed with verse, written in the 1st century a.d. by Petronius, extant in fragments.

This eBook is loosely put together largely from old graphics from my blog *The Dreamheron Chronicles*. They are interspersed with some narration. However, this is by no means the complete scientific case against the LIGO discoveries.

In a time of universal deceit,
telling the truth is a
revolutionary act.

George Orwell

PREFACE

OUR THORNE-CORRUPTED, THORNE-BILKED UNIVERSE

Almost on a weekly basis – as I write this – fantastic discoveries from LIGO are being reported. They have scientific legitimacy because they are published in peer-reviewed journals. They are adding up to an incredibly detailed and numerically precise description of the farthest realms of the firmament and the earliest epochs of time. These are coming largely from scientists one or two generations later than Kip Thorne.

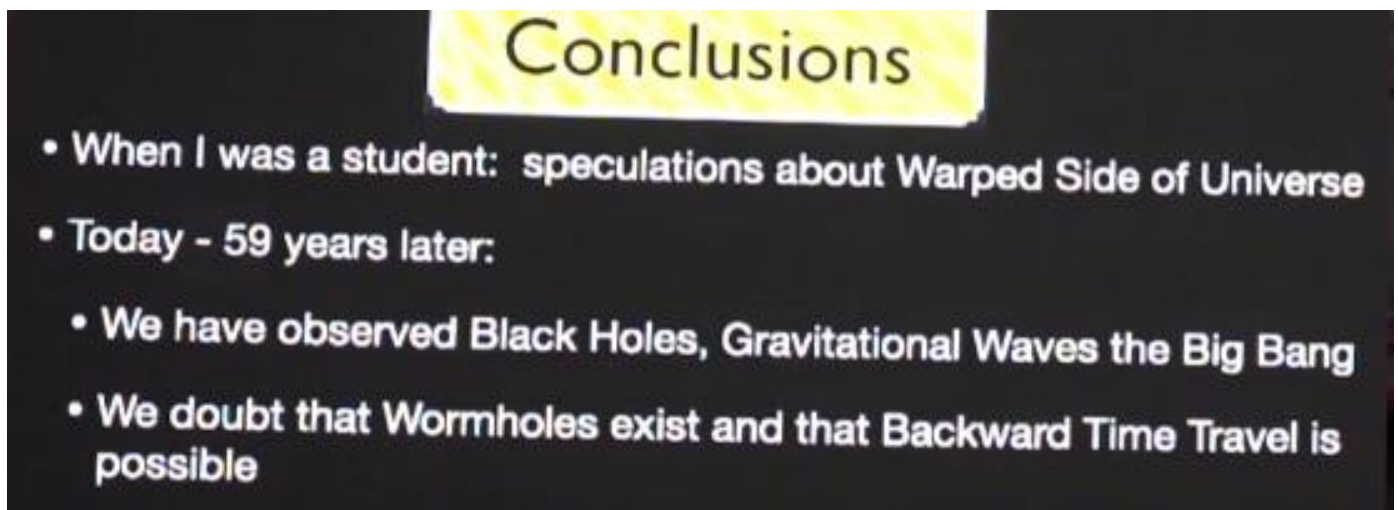
The observational data behind these reports have been scientifically debunked. But that fact gets no traction. It is as unwelcome as a globe in the foyer of the Flat Earth Society. This is an ongoing bastardizing of science that no one is doing anything to arrest, let alone reverse.

The bad actors of science like Kip Thorne will face no accountability. They are rapidly escaping with their phenomenal loot. Just look around you: Ringleaders Rainer Weiss and David Reitze have gone very quiet, and are probably planning escape strategies. Nergis Mavalvala and Laura Cadonati have become university administrators – a well-known escape route for weak but inflated researchers with powerful friends. NSF head France Cordova the chief LIGO enabler has gone to other pastures after President Trump did not renew her contract. Basically, a lot of the original culprits have activated their escape pods.

As recently as November 2021, Kip Thorne went to Slovakia to receive a medal and reaffirmed the LIGO

discovery. Rainer Weiss did the same in an interview with Brian Keating, published on 29 December 2020. In the same interview program, published 6 April 2021, John Mather reaffirmed his fraudulent COBE Satellite discovery. In December 2021, Caltech announced the construction of the new Kip Thorne Laboratory.

So, we are dealing with a new breed of discoverers who are in evidence as totally devoid of scientific honesty and societal conscience. Additionally, if they had come forward and accepted the blame, they could have eased the burden on the younger generations propagating their myth. Thus, these men are also devoid of human decency. Thorne in particular has done a good job of bilking physics for greenbacks. He is turning his Nobel fame into hard cash.



The Conclusion slide of Kip Thorne's speech at the award ceremony of the Grand Gold Medal in Bratislava, 13 October 2021. The prodigal child fulfils his destiny, according to himself.

The stark scientific dishonesty displayed in this vivid graphic should be taken as supporting evidence for dishonesty throughout the conduct of LIGO research.

KIP THORNE IN INDIA

In January of 2018 Kip Thorne went to India to give out the Infosys Prizes. Here's what I said then:

Nobel Prize Lessons

INSPIRATIONAL PROFILES OF CEREBRAL FRAUDS



QUIZ: THE HONOR DILEMMA

Young folks, you've had a few Nobel Prize Lessons. Now it is quiz time. This quiz is designed to test your moral mettle.



Here are the winners of this year's Infosys Prize (India). On 10 January 2018 they will be felicitated in Bangalore by this year's Physics Nobel Laureate Kip Thorne. They will each receive Rs. 65 lakhs (~US\$100,000).



These winners will be recorded in photographs and videos, shaking hands with Thorne. They will be clasping the very hand that was clasped by the King of Sweden, the Crown Prince of Norway, the King of Spain, Stephen Hawking, Christopher Nolan and so on.

But the winners have been put in a difficult position by the organizers of the Infosys Prize. Thorne is one of the greatest science frauds in history. So here is your question: For US\$100,000, would you shake hands with Kip Thorne? (Explain your answer in 500 words or more.)

Duty to Inform

A world education message from Bibhas De 12/26/2017

At the award ceremonies, here's what happened:

SHAKE HANDS WITH LIGO NOBELIST?

Ever heard of an award-giving ceremony where the felicitation handshake is at the initiative of the awardee? What would you, an awardee, do if you were given heads up that your felicitator is a science fraud? Would you, mindful of your future dignity, shake hands with him on permanent video record? Here's how the awardees acted when Kip Thorne handed out the Infosys Prize 2017 in Bangalore, Jan 10, 2018. (Heads up in the graphic below.)



CLOCKWISE FROM TOP LEFT: (1). An awkward, uncompleted attempt at handshake by the first awardee. (2). No attempt. (3) Full handshake initiated by the fourth awardee. (4) No attempt. (5) No attempt. (6) No attempt.

Bibhas De 09/08/2018

PHOTO-OP WITH LIGO NOBELIST



From left: Prof Ananya Jahanara Kabir, Prof Ritabrata Munshi, Prof Lawrence Liang, K Dinesh, Prof Kip Thorne, N R Narayana Murthy, Prof Sanghamitra Bandyopadhyay, Prof Upinder Singh Bhalla and Prof Yamuna Krishnan at the Infosys Award 2017 presentation ceremony in Bengaluru on Wednesday | VINOD KUMAR T

At the Infosys Prize 2017 award ceremony, none of the six awardees in this photo-op initially stood next to Kip Thorne. An organizer is trying to coax an awardee – not too gently - to do so. Bibhas De 09/08/2018

KIP THORNE AT THE NOBEL CEREMONIES

KIP THORNE'S NOBEL HUMILIATION



In the Nobel Prize Award Ceremony in Stockholm on 10 December 2017, the historical Banquet Entrance Procession is staged in a backroom where Crown Princess Victoria links arms with her designated escort Thorne. A royal photographer takes a still shot.

The cortège moves along and comes into public view. At exactly that point, the Princess turns to



Thorne, holding her dress with two hands, as if to say: *I have to hold my dress with two hands (and so cannot link arms with you.)*

The cortège proceeds, with a dejected-looking Thorne fending for himself while all the other



pairs link arms, as they have traditionally done for over a century of the Nobel lore.

Whether intendedly or unavoidably, a stark incongruity was presented to the world, broadcasting that there was something the matter with Thorne's presence there.

I am sorry I am acting like a gossip columnist. I don't like this (O the things I do for science!) But this is a damn serious

business that the thoroughly corrupt media pointedly did not report. This is a loud and clear Swedish acknowledgement that they screwed up badly in awarding the LIGO Nobel Prize. LORD HAVE MERCY!

Duty to Inform

A public education message from Bibhas De 03/06/2018

LIGO GETS ROYAL SNUB



at the Nobel Prize award ceremony on 10 December 2017. Breaking with long tradition and unbroken custom, the Crown Princess of Sweden pointedly did not offer her arm to her designated escort, LIGO Nobel Laureate Kip Thorne who stood accused of fraud.

The world shall not be deceived.

Duty to Inform

A world education message from Bibhas De 12/24/2017



LIGO AND THE YEAR OF NOBEL INFAMY

2016



2017



2018



The Nobel Banquet Entrance Procession is a time-honored and long-traditioned thing. The Crown and the Gown link arms as they progress towards the banquet tables. This tradition continued unbroken until 2016. It resumed again in 2018. The year 2017 will live on in infamy in the Nobel history. Crown Princess Victoria refused to link arms with Kip Thorne who at the time stood publicly accused of science fraud regarding his LIGO discovery. Thorne was visibly unhappy. The future monarch of Sweden acted circumspectly.

Duty to Inform

A world education message from Bibhas De 12/26/2018

I am showing these banquet procession images for very good LIGO reason, and not for gossip-column type entertainment. The change in Kip Thorne's demeanor tells us he felt extremely offended. The scene that unfolded had to be prearranged and choreographed in high level meetings. A decision was made that the future monarch of Sweden should not be on a video, being escorted by the arm by Kip Thorne. This raises the issue: Why?

They have used no end of atmospherics to install the LIGO discovery and deflect attention from its science faults. We can also use atmospherics to reveal them.

KIP THORNE IN HIS OWN HOMETOWN

KIP THORNE'S HOMETOWN HUMILIATION

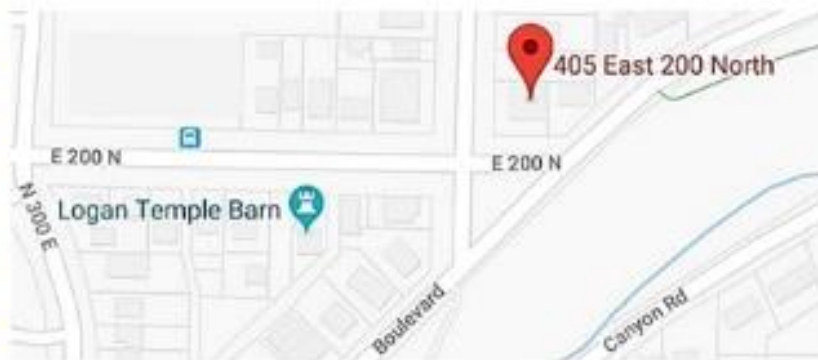
In no less a place than his own hometown where he went back expecting a hero's welcome after garnering the LIGO Nobel Prize, Thorne faced pointed public humiliation.

Before Thorne, Logan UT had another hometown boy Lars Hansen win the Economics Nobel in 2014. A proud city renamed a major thoroughfare *Lars Hansen Drive*.



When Thorne received his Nobel in Physics in 2017, the city fathers again were faced with the pleasant task of likewise renaming another thoroughfare. But after "thoughtful" deliberation it was decided to *not* actually rename any streets after Thorne. Instead, they would just place a sign saying *Kip Thorne Boulevard* in a street corner (map added):

During his visit, the city of Logan will name a street near Thorne's childhood home in his honor. According to public works director Paul Lindhardt, the street will still



be known as "The Boulevard" officially, but it will also feature a sign that reads "Kip Thorne Boulevard" at 405 East and 200 North. (HJNews, June 12, 2018)

So Hansen gets a major street in perpetuity and Thorne gets a little fake sign. When it becomes necessary, the sign can be taken down with just a screw driver.

KIP THORNE IN AUSTRALIA

KIP THORNE'S AUSSIE HUMILIATION? **NEXT ON VICTORY LAP AFTER CHINA: AUSTRALIA!** **What's NEXT? Tickets**

TICKETS & EVENT INFO

Venue:

Brisbane Convention & Exhibition Centre, QLD

Date:

Thu 13 Sep 2018 7:30PM



Presented by: Lateral Events

LET'S TALK GRAVITATIONAL WAVES, BLACK HOLES, WORMHOLES, DARK MATTER AND TIME TRAVEL.

Lateral Events is delighted that American Nobel Prize-winning theoretical physicist Professor Kip Thorne has accepted our invitation to travel to Australia to lead an eminent panel discussion delving into how scientific advances will change how we live our lives and how the world we live in will change for ever.

Kip Thorne will discuss the area of his Nobel Prize work: the past, present and future of gravitational wave research and multi-messenger astronomy, their remarkable technology, and their future impact on human understanding of the universe in which we live.

Joining Kip Thorne will be astronomer Professor Alan Duffy and Robin Ince, co-host of The Infinite Monkey Cage and award-winning British comedian.

Oopsie!

EVENT CANCELLED

It is with regret that Lateral Events announces that despite our best efforts, What's NEXT? has been cancelled in Brisbane.

08/12/2018

A SATYRICON MUST HAVE SOME VERSE!

LIGOSONG FOR JUNGLE DRUMS

Ta-ra-ra Boom-de-ay
Ta-ra-ra Boom.
Ligo's gonna go belly-up soon.
Kip's got too big for his breeches,
Rainer's genius has us in stitches;
Cordova's got money to burn.



Ta-ra-ra Boom-de-ay
Ta-ra-ra Boom.
The destitute of discovering ardor
Never tasted the good life at all;
Yuri's gonna treat 'em cool,
He gonna serve lobster thermidor.



Ta-ra-ra Boom-de-ay
Ta-ra-ra Boom.
Reporter man he tawk pretty
On PBS an' NYT an' whatnot;
Showy as a baboon's butt,
He trot like a real hottie.



Ta-ra-ra Boom-de-ay
Ta-ra-ra Boom.
Gunga Din the bhisti-wallah,
Huzurs send him on his way:
*Hi! sipahi hitherao, thodasa
Kuch gravitation wave lao!*



Ta-ra-ra Boom-de-ay
Ta-ra-ra Boom.
They pretend Ligo's live today
The way Norman the Psycho
Kept his dead mother intacto;
It'a all a post-truth play.



Ta-ra-ra Boom-de-ay
Ta-ra-ra Boom.
Magnificent dissident fellas -
They ride in a guardian stance;
Horsemen'll save your science
From the hombres muy malos.



12/29/2016

KIP THORNE ON PEDO ISLAND

MERE COINCIDENCE

UNRELATED LISTS: SAME NAMES

A list of some physicists whose science or scientific opinion I have criticized in this blog site over the years:

Stephen Hawking Kip Thorne David Gross
Lawrence Krauss Frank Wilczek Gerard 't Hooft
Lisa Randall

A list compiled from current media reports of physicists who accepted hospitality of billionaire Jeffrey Epstein:

Stephen Hawking Kip Thorne David Gross
Lawrence Krauss Frank Wilczek Gerard 't Hooft
Lisa Randall



British theoretical physicist Stephen Hawking attends a barbecue on Jeffrey Epstein's Caribbean island Little St James while attending a conference on neighbouring island St Thomas in March 2006 Photo: TIM STEWART NEWS LIMITED

In this photo (l. to r.): Unidentified person, Stephen Hawking, David Gross, Kip Thorne, Lisa Randall.

Bibhas De 07/22/2019

LIGO AND THE MEDIA

The ligo-nauts, through their alliance with the science media, have trounced the dissidents. The science media – not the scientific community - is installing the garbage science, and convincing governments to do so. That being the case, folks, why look away from *the other* current presence of LIGO in the mass media? You know, the one about the LIGO leaders and LIGO promoters as guests of Jeffrey Epstein. This *is* relevant. Here's what Katha Pollitt said: "What I can't get over is how Epstein successfully weaseled his way into science at the highest level by cultivating major figures in the field socially and spreading his wealth around. Science! The very temple of the pursuit of truth. Call me insufficiently jaded, but am I wrong to expect more of those we rely on to combat all of the nonsense swirling around us? "



08/23/2019

ACCOLADES NEVER STOP, EVEN TO THIS DAY!

The more the public acknowledgement of the LIGO fraud is delayed, the more such accolades are a-wasting.

TWO WILD AND CRAZY GUYS FROM BRATISLAVA



JUST GAVE KIP THORNE

Slávnostné odovzdanie
Veľkej zlatej medaily
Univerzity Komenského
a prednáška držiteľa
Nobelovej ceny
prof. Kipa S. Thorna

Streda 13. októbra 2021 o 9.30 hod.
Aula Univerzity Komenského,
Šafárikovo nám. č. 6, Bratislava

ESET
Science
Award

UNIVERZITA
KOMENSKÉHO
V BRATISLAVE

A portrait of Kip S. Thorne, a man with a beard and glasses, wearing a blue shirt. He is smiling slightly.

THE GRAND GOLD MEDAL!

11/17/2021

"In theory there is no difference between theory and practice - in practice there is."

-Yogi Berra

Let's be objective. By any measure, by anybody's definition, Kip Thorne's credentials and track record as a research physicist are unassailable. He has written authoritative tomes, done great calculations which explored magnificent fictionscapes of science, and mentored a hundred top flight Ph.D.s. His scientific imagination is manifest to a seal hunter in Tuktoyaktuk or a taco vendor in Chichicastenango, in the movie *Interstellar*. And he is after all a student of John Archibald Wheeler, the quintessential gentleman scientist.

So, why am I assailing this Caesar's Wife? Everyone needs to understand this point with crystal clarity. *LIGO is the one and the only time the totality of Thorne's scientific acumen was put to starkly existential experimental test.* For the first time in his career, he would formulate something that would become concrete-and-steel behemoths over vast terrains of American landscape. He was going to have to let it all hang out. A sombrero seller in Huehuetenango and a taxi driver in Antananarivo were going to learn for sure how good a physicist he actually was. One billion dollars and a few decades were to be invested in him. He was looking at either the Nobel Prize or the scarlet letter F.

He merited the latter. His friends got him the former.

Kip Thorne's scientific infallibility is a concocted legend. He is a frou-frou science guy like Edward Witten. Imagine Witten given a billion-dollar to design an experiment.

At a first glance, Thorne is the lead theorist and Rainer Weiss is the lead experimentalist behind LIGO. In reality, both have responsibility in both areas. This is important.



MEMORANDUM: LIGO INSTRUMENTATION FRAUD

Apportionment of blame

There is now a clear statement (01/09/2018) from Kip Thorne accepting full responsibility for the instrument. So he and Rainer Weiss are equally to blame for the quack instrument concept that made the fraudulent grand discoveries.

“TIMES OF INDIA: Were you always convinced about detections?”

Thorne: It's been a long journey, I began thinking about it about 50 years ago from a theoretical point of view, though it was 45 years ago when Rainer Weiss proposed the type of GW detectors we use in LIGO. It took me four years to get convinced that his design and idea has a serious chance to succeed, and once I was convinced I made a commitment to do everything to help him and his experimental colleagues to pull it off. I never had any serious doubts that this would succeed once I fully understood how this may work and the obstacles, and came to know the significant possibility to succeed.”

According to theory, a GW sets the two LIGO mirrors (~5.6 km apart) in *concerted* motion. Since LIGO can never measure the absolute motion of each mirror, this GW signature motion can never be observed. LIGO senses only *differential* motion of the two mirrors. If the mirrors were initially stationary (no other sources of motion), and the LIGO readout suddenly showed a wiggle similar to that calculated for the GW signature motion, this wiggle still would not prove that this motion is taking place. As an example, the wiggle could be due to just one mirror moving or tilting or jittering due to some unknown impetus local to that mirror. Thus even this textbook-ideal LIGO cannot detect GW on paper. Simultaneous signals at two or more stations, or demonstrating wiggle-matching cannot confirm the GW signature motion.

LIGO : GW :: Dowsing Rod : Water

01/16/2018

Thorne's overall scientific quality was never tested in any real-life application until LIGO. He displayed great misconceptions in many areas of applicable physics. Even in his own core area of expertise, General Relativity, he seems to have displayed his great confusion (see following graphic).

Weiss's instrumentation-design ability had been tested in the COBE Satellite program. He was in evidence as a toolshed tinkerer who fancied himself an experimental genius.

Such were the sordid beginnings of LIGO quackery.

2017 PHYSICS NOBEL PRIZE

Should you laugh or cry?

The prize was given for detection of gravitational wave with the LIGO instrument. Up until now, four detections have been reported. The following scientific "points and authorities" were in full view of public when the ludicrous decision to award the Prize was made.

(a). The observations were those of an entirely expected terrestrial phenomenon known as Schumann resonant transients – a type of ubiquitous global geomagnetic disturbance spreading from lightning strike somewhere. This explains very simply the near-simultaneity of the observations at two or three distant stations, and the jagged signal profiles. The LIGO design is (unintendedly) capable of receiving and reporting these electromagnetic signals.

(b). The impressively detailed matching of the observed signal profile to that modeled for binary black hole merger must be dismissed out of hand because the observed signals were improperly extracted, because the model has enormous tweaking capacity, and because there is no way to back out the LIGO incident waveform from the observed output waveform.

(c). There is exactly zero evidence that the two independently hung LIGO mirrors have been set in entangled motion, and that the motion amplitude is $\sim 1/10,000$ -th of the proton diameter, as required for gravitational wave incidence. This is purely a cock-and-bull story. Take away this false story, and there is no discovery.

(d). There is no calibration curve for LIGO displacement. All quantitative reports (x solar mass, y light years etc.) are garbage.

(e). LIGO's vaunted vibration isolation system – essential to the discovery – is in experimental evidence as not working as stated.

(f). LIGO functioning is crucially dependent on the Earth's static magnetic field. LIGO scientists and engineers are in evidence as being serenely unaware of this crucial effect on their instrument.

There was never a scintilla of evidence that LIGO observed, or is even capable of observing, a gravitational wave, if such waves exist. Anybody that tells you different is either a wily fraud or a person who does not know his --- from a hole in the ground.

This Nobel Prize would be a laughable quackery had it not been for the fact that it casts a sepulchral pall upon our scientific civilization.

NOBEL PRIZE CANCELLED



The 2017 Nobel Prize in Physics was awarded to Rainer Weiss, Barry Barish and Kip Thorne for the detection of gravitational waves. Their

billion-dollar LIGO instrument network (unintended but explicably) picked up transient geomagnetic disturbances traveling around the globe along the ionospheric cavity (the spherical shell formed by the Earth's surface and the top of the ionosphere), disturbances created by local lightning strikes somewhere on Earth. **Four times** these men passed off these well-known disturbances as gravitational waves from billions of light years away, by concocting a cock-and-bull fable about how their instrument works to detect these waves. This is like a conman painting a house sparrow in iridescent colors and selling it as a storied exotic bird from the Amazon rainforest.

This is the **second** grand space-age fraud by Rainer Weiss. He led the COBE Satellite's fraudulent discovery of cosmic blackbody (which won a Nobel Prize in 2006 for John Mather and George Smoot). This is the **fifth** time since 1978 that the Nobel Committee aided and abetted to install grand-scale American science fraud as legitimate grand science. There is emerging a pattern here. Read my books *The Falsifiers of the Universe* and *Unchallenged Privilege*. I ask all good folks to reject what these Nobel Prizes stand for. – Bibhas De 10/03/2017

ONE BILLION DOLLARS FOR THIS?!



The LIGO instrument operates strictly on the principle that while a gravitational wave is passing by, the speed c of the laser light remains a constant in that frame. In the following the authors explain with total clarity why this principle is wrong. Many others have explained many other fatal faults of LIGO. What no one can explain is why the Ligonauts are still peddling their wares and why governments are still buying their wares. May be a taxpayer can ask France Córdova (above) or Diane Souvaine or Anneila Sargent.

LIGO Experiments Cannot Detect Gravitational Waves by Using Laser Michelson Interferometers

—Light's Wavelength and Speed Change Simultaneously When Gravitational Waves Exist Which Make the Detections of Gravitational Waves Impossible for LIGO Experiments

Xiaochun Mei¹, Zhixun Huang², Policarpo Yōshin Ulianov³, Ping Yu⁴

Journal of Modern Physics, 2016, 7, 1749-1761

In the gravitational field, we have two definitions for ruler and clock, i.e., coordinate ruler and coordinate clock, as well as standard ruler and standard clock (or proper ruler and clock). Coordinate ruler and coordinate clock are fixed at a certain point of gravitational field. They vary with the strength of gravitational field. Standard ruler and standard clock are fixed on the local reference frame which falls free in gravitational field. In local reference frame, gravitational force is canceled, so standard ruler and standard clock are unchanged.

In LIGO experiments, observers are located at a gravitational field caused by gravitational wave, rather than falling free in gravitational field, so what they used were coordinate ruler and coordinate clock. Therefore, light's speed in LIGO experiments is not a constant.

01/23/2019

LIGO FACE/OFF!

AN IMAGINARY DIALOGUE BETWEEN STEPHEN CROTHERS AND KIP THORNE

CROTHERS: The black holes you assert are allegedly contained within a big bang universe. There are in all, 3 types of big bang universe according to Einstein's theory, by means of their k -curvature values: (i) $k = -1$: this is a spatially infinite universe with negative curvature; (ii) $k = 0$: this is a spatially infinite universe that is flat; (iii) $k = 1$: this is a spatially finite universe with positive curvature.

THORNE: Everybody knows all this

CROTHERS: All big bang universes are expanding and have a finite age (~13.8 billion years). However, no black hole universe is expanding, no black hole universe possesses a k -curvature, no black hole universe contains more than one mass (only the black hole itself), no black hole universe can fit inside a spatially finite big bang universe because all black hole universes are spatially infinite, no black hole universe can exist in a big bang universe because the black hole universe is eternal (it has neither a beginning nor an end in time).

THORNE: It's all in the textbooks.

CROTHERS: General Relativity is a nonlinear theory. This means that the Principle of Superposition does not hold. In other words, if X is some black hole universe and Y is another black hole universe, and Z is some big bang universe, then $X+X$ is not a universe, $X+Y$ is not a universe, $X+Z$ is not a universe, $X+Y+Z$ is not a universe, $Z+Z$ is not a universe, etc. To obtain multiple black holes within some big bang universe, you simply superpose, in direct violation of the mathematical form of Einstein's Theory of General Relativity. Is all this correct?

THORNE: In theory. We make approximations to make the problem tractable.

CROTHERS: Well, if you slap together two black holes that do not mathematically belong together, and if you pack them in a big bang universe where neither mathematically belongs, how are your exact mathematics of black hole merger in this universe – the very essence of your discovery - valid?

THORNE: You do not understand.

INSTRUMENTATION SCIENCE

Right off the bat, Thorne and Weiss displayed a lack of understanding of the design of scientific instruments. Same is true about all who evaluated, promoted and anointed LIGO.

LIGO: AN AMICUS CURIAE BRIEF

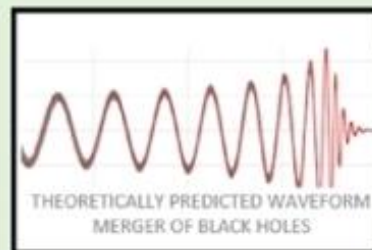
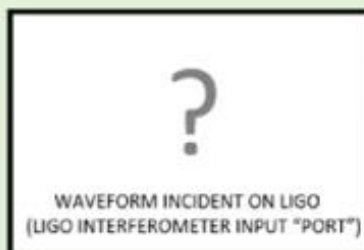
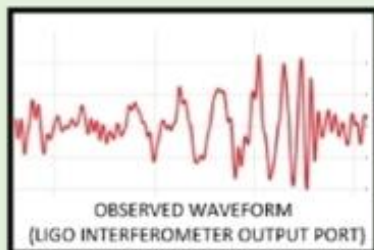
To: Kavli Astrophysics Prize Committee 2016

Physics Nobel Prize Committee 2017

Sub: Laser Interferometer Gravitational-wave Observatory's discovery

The LIGO instrument suffers from numerous scientific and engineering faults - many of them fatal. But here is a simplified sketch of one of the central stratagems behind the discovery of gravitational wave and black hole merger.

Most scientific instruments – as with LIGO – can be seen to have an input port and an output port. There is an input signal and an output signal. Generally, one of these is measured, and the other is inferred therefrom. The inferred signal then may be used to construct a theory or to test a preexisting theory.

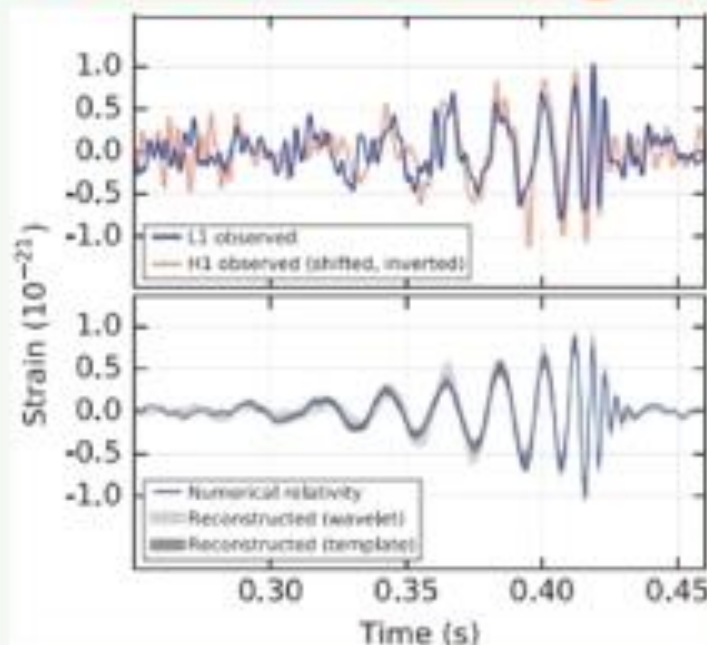


The LIGO output port signal is the observed waveform. LIGO input port signal is to be backed out from the observed signal using the *instrument transfer function*. For LIGO this function and therefore the input waveform are indeterminate. So the scientists simply slipped in in its place their theoretically predicted waveform which they tailored to match the observed waveform. The discovery followed. There was no cause-and-effect link between observation and theory.

There is no evidence that LIGO ever underwent a proper evaluation by professional engineers unconnected to the academia. *The Physical Review Letters* would not have conducted such a review before publishing the LIGO paper and thereby positing it as a discovery. This publication has no probative value whatsoever.

05/18/2016

LIGO NON SEQUITUR



This is the telltale LIGO discovery diagram, showing how the wiggle observed by Raister's machine (*top*) perfectly matches up with Kippyboy's intricate theory calculation (*bottom*). These dudes are the ultimate answer to the maiden's prayer! Or so we've been told.

Now I look at this and I tell myself: This is the ultimate non sequitur. There is absolutely no cause for the top panel to match the bottom panel! This is like putting your hand inside a shoe and finding a perfect fit. The top panel is the LIGO **output** waveform (the strain reported by LIGO). The bottom panel should match the LIGO **input** waveform (the strain incident on LIGO). And there is no way to get the LIGO input waveform because LIGO does not have an *Instrument Transfer Function*. Why not? Because LIGO is a worthless piece of crap from the beginning to the end. And so's the LIGO discovery. **Read my book there!**

A world education message from Bibhas De 07/27/2017

LIGO SCAMORAMA I

ON THE SKY

KIP'S CONJECTURES:

- A. BLACK HOLES MERGE
- B. GRAVITATIONAL WAVES



KIP'S WIGGLE



(compare)

RAINER'S WIGGLE



INSIDE LIGO

RAINER'S CONJECTURES:

- C. MIRROR MOTIONS
ENTANGLED
- D. MACROSCOPIC MOVEMENT
ON QUANTUM SCALE

Q: Astronomical discoveries involve a known instrument and an unknown source. LIGO concerns an unknown instrument and an unknown source. Each of the above four independent conjectures must be demonstrated to be correct. LIGO has no way to demonstrate that the uncommon instrument conjectures actually happen. Comparing the above two wiggles is the only test LIGO can perform. Now, if the wiggles do match in detail, which of the four conjectures stand proved?

A: None. One wiggle match cannot simultaneously make a discovery on the sky and validate the unknown discovery instrument on ground. Simply put, two scientific unknowns cannot validate each other.

10/25/2017

HOW LIGO THIRD DETECTION EXPOSES THIS ENTIRE SHAM DISCOVERY "INDUSTRY"

("The hunter who always comes home with meat is a thief." – Bantu proverb)

A LIGO discovery process begins with identifying discovery candidate events observed, based on the following criteria:

COINCIDENCE (Simultaneous observation at two stations)

DELAY (A time lag of at least 10 ms between the two stations)

They then look for the signatures of Binary Black Holes merger source mechanism of gravitational waves:

CHIRP (Increase in frequency with time)

RINGDOWN (A ringing following chirp)

To date there have been three LIGO discoveries. In the case of the third discovery, they had 7 candidates. One (Candidate C, say) became the discovery; the rest were simply discarded.

| | <u>COINCIDENCE</u> | <u>DELAY</u> | <u>CHIRP</u> | <u>RINGDOWN</u> |
|-------------|--------------------|--------------|--------------|-----------------|
| Discovery 1 | ✓ | ✓ | ✓ | ✓ |
| Discovery 2 | ✓ | ✓ | ✗ | ✗ |
| Candidate A | ✓ | ✓ | ? | ? |
| Candidate B | ✓ | ✓ | ? | ? |
| Discovery 3 | ✓ | ✓ | ✓ | ✓ |
| Candidate D | ✓ | ✓ | ? | ? |
| Candidate E | ✓ | ✓ | ? | ? |
| Candidate F | ✓ | ✓ | ? | ? |
| Candidate G | ✓ | ✓ | ? | ? |

The correct scientific methodology would demand a full reckoning of *all* the discarded candidates ([What are *their* source mechanisms?](#)). Otherwise, LIGO is placed in evidence as a wacko trawler that habitually hauls in a great deal of "mystery catch". No firm conclusions can be made on one chosen catch.

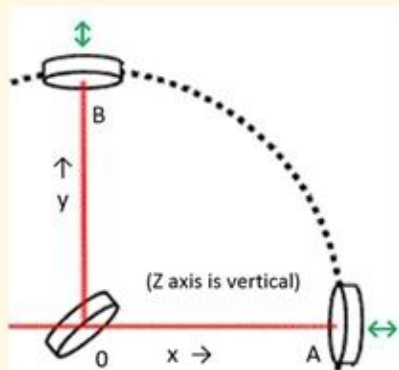
Discoveries 1-3 are contingent on, and most likely undoable by, the answers to the above question. So there are no discoveries.



= A RIGHTEOUS CELEBRATION TO COVER UP
RAMPANT AND CANCEROUS CORRUPTION IN
AMERICAN ACADEMIC SCIENCE

THE BILLION-DOLLAR PHYSICS FRAUD

In February last year the grandest scientific discovery was rolled out, emphasizing the triumphal march of science in the service of humanity. It was a fraud transparent as daylight, but maintained as genius discovery by the American physics establishment. Everyone with a basic science orientation can see right through this ruse.



There were two mirrors A and B suspended by vertical threads. Extreme engineering was done to see that the mirrors were mechanically uncoupled. If you tapped on one mirror, it moved; but the other did nothing.

The theory of this experiment to detect gravitational wave says that when a wave comes down vertically, an *entanglement* of the mirror motions occurs:

- (1). Both mirrors vibrate along their axes (green arrows).
- (2). The amplitudes of the vibration become linked.
- (3). The mirrors vibrate concertedly, 180 degrees out of phase (when one mirror is moving towards 0, the other would be moving away from 0.)

The experimental confirmation of all three effects would constitute a scientific proof that a gravitational wave has passed through.

When this supercalifragilisticexpialidocious discovery was rolled out by the superduperultraübergeniuses before a stunned world, here's what the conmen had actually observed:

- (1). Both mirrors may or may not have vibrated.
- (2). There was absolutely no evidence that the amplitudes were linked.
- (3). There was absolutely no evidence that any vibrations were concerted.

The \$1bn instrument discovered absolutely and utterly nothing. A kindergarten-level trickery was wrapped in truckloads of highfalutin math and high tech, and passed off as a triumphal march of science.

THE BARE-BONES LIGO DETECTOR



These two mirrors on a vast field hang freely from independent overhead support structures. Extreme care has been taken to see the mirrors are not mechanically linked in any way. They vibrate/jitter randomly on their own when there is earth tremor, when a vehicle is passing nearby, when an electromagnetic disturbance is incident, and so on.

When a gravitational wave (GW) comes down from the sky (vertically to the plane of the paper, say), GW theory says that the mirror oscillations become concerted. When one mirror moves forward along its axis, the other moves backward, and *vice versa*. It is as though there is an invisible mechanical entanglement of the mirrors. So this is the effect of the gravitational wave on the LIGO instrument. This concert is what LIGO needed to experimentally demonstrate as happening, if it was to be a detector of GW.

And that is precisely what LIGO cannot demonstrate experimentally. A cock-and-bull story has been made to cover up this fact, to bypass it, to shunt around it, to gloss over it, to not address it. If some Joe Blow brings this up, they ignore him using their establishment power, media power, and Nobel power.

In no way, shape or form is LIGO a detector of gravitational wave. It is a billion-dollar piece of junk that has been promoted as a work of great genius. The world has never seen anything like this.

We have heard so much about how LIGO is all about detecting a small signal. Thorne never understood the deeper scientific issue in this respect: Source Strength/Signal Strength = ∞

CJ on Mathematics and Science

TOWARDS UNDERSTANDING BY CRITICAL CONSTRUCTIVE INQUIRY

FREDAG 12 FEBRUARI 2016

 Absurdity of Modern Physics: LIGO Gravitational Wave Detection as Ill-posed Problem.

We understand that an expansion-contraction of the Earth of the size of an atom nucleus diameter as an effect of a "ripple in the fabric of space-time" was detected during 0.25 seconds, and from this observation the **conclusion is drawn by computer simulations and modelling** that this extremely minute effect as a "ripple in the fabric of space-time", was the result of a very specific extremely gigantic invisible explosion 1.3 billion light years away shining brighter than all stars in all galaxies for 0.25 seconds in the form of gravitational waves.

We see a combination of a biggest possible cause/input and a smallest possible effect/output in a certain mathematical model. The conclusion comes from using this mathematical model in inverse form, where a smallest possible signal is used to identify a biggest possible origin of the signal.

This means that the mathematical model in inverse form is extremely **ill-posed** and as such cannot be used to draw conclusions. To do so requires that all alternative explanations of the zero signal can be eliminated, and it is then not enough to just say that no other explanation immediately suggest themselves, that is to draw conclusions from ignorance with the precision of the conclusions increasing as the ignorance or stupidity grows.

- Claes Johnson

MORE ON THE CLAES JOHNSON POINT ... (from blog The Dreamheron Chronicles, 1/8 2017)

Infinitely large explosions in the universe cause LIGO signals that are buried below the noise threshold or barely rise above it. This is the inherent nature of LIGO: An ill-posed physics problem.

Let E be the total "energy" released in a black holes merger (in Joules, say).

The total energy received by the LIGO "aperture" during the passage of the wavefront – which can be calculated from the strain signal observed – is infinitely small in comparison, as the Ligonauts have explained. Let us call this e (Joules).

So, for LIGO instrument design purposes,

$$e/E = 0.$$

This is true even if it is possible to write down an actual large number for E (e.g. 10^{48} Joules) and an actual small number for e . Simply writing down a numerical value (*ten to the power ...*) for what is essentially infinity, and one for what is essentially zero (in comparison) does not make infinity and zero tractable in instrument design.

By differentiating above equation:

$$\Delta e / \Delta E = e / E = 0;$$

$$\Delta E / \Delta e = E / e = \infty$$

Thus a measurement uncertainty Δe cannot be related to an uncertainty ΔE in the source.

So this is the imagery to carry in your mind: The sources release energies covering the whole expected range, but the needle of the LIGO meter remains stuck near the left in a grey-shaded band representing noise.

Conclusion: LIGO is not a proper scientific instrument.

The Ligonauts have tried deliberately to detract attention from the fact that they are dealing with infinity vis-a-vis zero, by plastering the world with fantastic but well-scripted stories about both the large end and the small end – making them each a finite concept.

On the source end the storyline is:

... *this is the biggest explosion since Big Bang...*

Since the (bogus) Big Bang explosion is something everyone knows to be hardcore reality, the black hole explosion is thus brought under the umbrella of quantitatively tractable phenomena.

On the detection end the storyline is:

... *our technology is so advanced that we can measure displacements as small as 1/10,000-th of the proton diameter ...*

Since proton diameter is a known physics parameter, the zero is elevated to a finite, tractable context.

Thorneweiss LIGO Science

One point many LIGO sceptics have had trouble with in their gut is how LIGO can measure mirror “displacements” of 1/10,000-th the proton diameter, a measurement that was at the root of the discoveries. In Beijing in August 2018, Kip Thorne offered the following defense [bad machine translation from a Chinese report; (...) are mine]:

If, for example, the mirrors are separated by so many kilometers, starting with (a displacement measurement of) 1 cm, dividing 1 cm by 100 is the diameter of the hair, and dividing by 100 is the wavelength of light. After removing 100,000, you can get the diameter of the atom. After removing 100,000, you can get the diameter of the atomic nucleus. After dividing 1000, you know the distance of the mirror hole (mirror displacement). I really like this analogy. Before I researched his thesis, I would think that this person (Rainer Weiss) is too stupid and crazy. We can't test such a small distance. I also discussed it with him and found that it was really possible to see such a small change.

THORNEWEISS SCIENCE: By arbitrarily lengthening the interferometer arms, you can measure arbitrarily small displacements without ever encountering any physics limitations.

First, this leads to LIGO claiming high precision measurements of displacement and velocity where the displacement x is comparable to the quantum mechanical uncertainty Δx in the position. Second, the longer the arm, the less the definition of the signal trace recorded. So, there are *fundamental limitations* on how long the arms can be. *Thorneweiss Science* exceeds those limits.

THE CENTRAL STUPIDITY

of the thousand-man LIGO clan

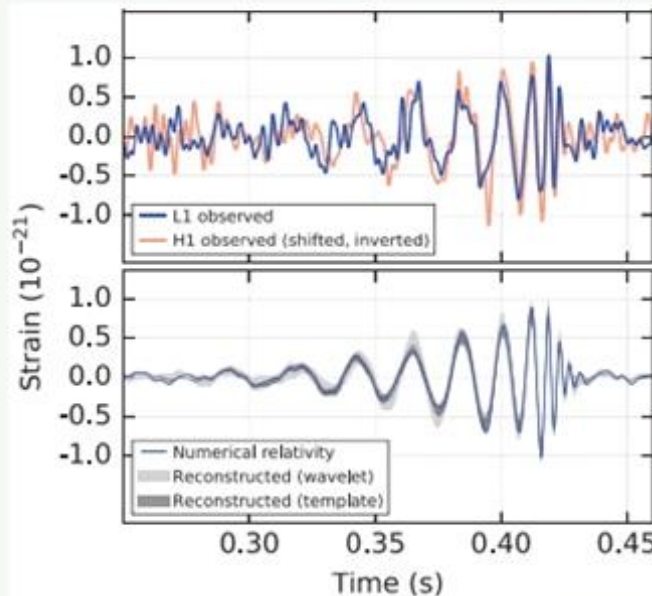
Here's how Thorne-Weiss LIGO science works: A modeled wiggle (gravitational wave "strain" pulse train) from a modeled black hole merger is incident on LIGO. This is the *input wiggle*. The wave squeezes one LIGO arm while stretching the orthogonal arm. The interferometer measures the tiny differential length change of the arms. This change (strain) is the *output wiggle*. So, if these input and the output wiggles match, the theory and the model on the sky and the unbelievable assumptions about the instrument are all validated in one fell swoop. If you happen upon a stage and see a portly lady singing there, it must mean an entire opera has taken place, right?

This is mind-numbing stupidity (later turned fraud), and is an attempt to avoid the correct scientific procedure of determining the *Instrument Transfer Function* (which, understandably, is indeterminate. LIGO is not a valid instrument.) Because the LIGO arms are infinitely small compared to a wavelength, they do not function independently. *So they cannot sense the said orthogonal differential effect* even if the gravitational wave exists and has this property. LIGO science excludes this wave physics. So the change (the output) is zero. All this I explained in my book, and also presented in the following diagram in this blog to alert potential prize givers. As you know, the prizes were given out.

The morale: *Never try to teach a pig to sing. It wastes your time, and it annoys the pig.*

Bibhas De 10/18/2018

LIGO DOUBLE TRAP



$$O(t) = I(t)$$

$$C(t)$$

This is the telltale LIGO discovery diagram, showing how the wiggle $O(t)$ observed by Rainer Weiss's machine (*top*) perfectly matches up with Kip Thorne's model calculation $C(t)$ (*bottom*). Based on this alone, anyone with an ounce of physics in his gut and a milligram of capacity to ratiocinate can see that the discovery is patently bogus.

The top waveform is the LIGO output waveform $O(t)$, after meticulous removal of noise and other contaminations. LIGO has a corresponding input waveform $I(t)$. These two quantities are related by the LIGO *Instrument Transfer Function* $T(f)$, f being the frequency:

$$O(f) = I(f) \times T(f) \text{ [Fourier Transforms of } O(t) \text{ and } I(t)\text{]}$$

$I(t)$ cannot depend on the instrument. That is the whole point of the ITF. And logically, $C(t)$ must be compared with $I(t)$, not $O(t)$.

But since they compare $C(t)$ with $O(t)$, they assume $O(t) = I(t)$. In other words, for LIGO, $T(f) \equiv 1$ for all frequencies f , presumably because of the assertion that all instrument effects have been meticulously removed. Now consider the two alternatives possible:

$T(f) \equiv 1$: This means the waveform *incident* on LIGO is the jagged waveform (top panel), and the waveform that left the binary black hole source has a smooth form (bottom panel). The jaggedness and the spiky nature of the main body of the observed waveform had to arise while the wave was in flight (If not, where else?). This is absurd.

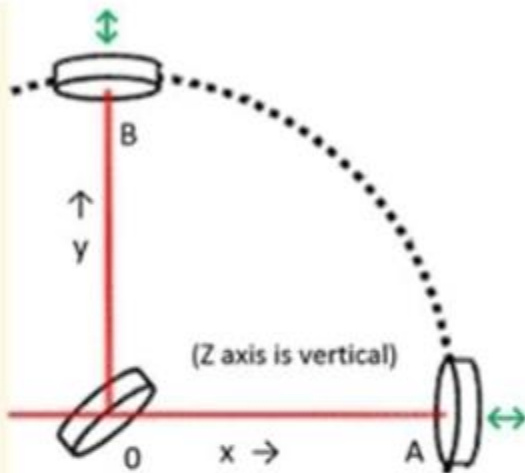
$T(f) \neq 1$: Then the whole study is obviously all screwed up.

There is no way out!

LIGO SCAMORAMA VIII

The curious incident of the dog in the nighttime

Let's go back to the conceiving of LIGO. The problem here was that when a gravitational wave (GW) passes through LIGO (coming down z axis, say), the instrument has no fixed reference point in space in its vicinity because the space itself is in motion. Absolute distances cannot be measured.



Rainer Weiss's legendary instrument "genius" came up with the idea of making *differential* measurement. The *difference* between the lengths OA and OB would be measured. Why would they be different? Because the waves have a property called polarization. It causes the mirrors A and B to move in concert with the wave but in different

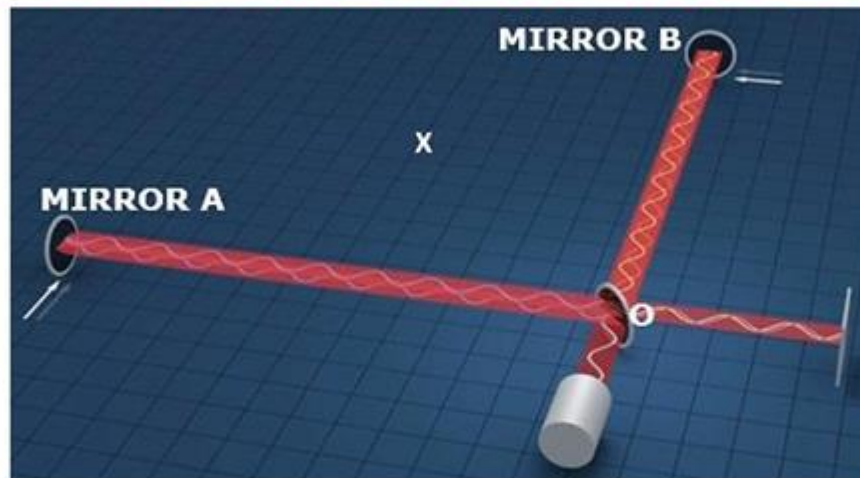
directions. As A moves towards O, B moves away from O, and vice versa. Thus $OA \sim OB$ is nonzero, and measurable.

Now here's the problem: Polarization is the conjecture LIGO is out to prove! Therefore the concerted motion is also a conjecture. Because absolute distances cannot be measured, the motion of an individual mirror cannot be measured and so the concerted motion cannot be observed. But this outre idea of invisible entanglement of mirrors certainly needs verification.

The principle of operation of LIGO is the very conjecture it is out to discover on the sky. This principle is said to be post-validated by that discovery. If the discovery has to validate the instrument, what's validating the discovery?

You are out in the jungle at nighttime trying to track down a unicorn, based on a conjecture that the unicorn smells like Morlocks. You bought a sniffing dog from Sgt. Bilko who said it can smell Morlocks. Now, if the dog becomes suddenly agitated in the jungle at nighttime, does this prove there is a unicorn and the dog can indeed smell Morlocks?

LIGO INSTRUMENT IN-DEPTH



The LIGO instrument is about measuring the horizontal displacements of the two freely hung mirrors A and B as a gravitational wave (GW) passes by, relative to the stationary reference frame of the instrument before the wave arrived. In conventional physics this displacement is indeterminate. Consider any arbitrary point X anywhere in the LIGO universe where you stand with a Laser Distance Measurer. Can you measure in real time the movement of the two mirrors? No, because you are also moving when the GW is passing by.

This is where Nobelist Rainer Weiss's legendary genius of measuring the *difference* in the displacements of the two mirrors comes in. The method works in the interferometer because of the GW theory that as one mirror moves towards O, the other moves away from O. The two mirrors move antisynchronously. A nonzero phase shift $\Delta\phi$ results between the two laser beams returning to the detector O from the two mirrors. The legendary boo-boo with this technique is that you can never demonstrate this antisynchronicity which is not a given but something *for the experiment to prove*. You cannot prove this because of what I said in the preceding paragraph. Any physicist who believes in *The Raister Bootstrap* is a loser.

Duty to Inform

A world education message from Bibhas De 01/07/2019

IT IS ALL ABOUT WAVE DETECTION SCIENCE:

LIGO: BEYOND AUTHORITATIVE POSTURINGS

WAVE BEHAVIOR

"Gravitational Wave" has two parts: Gravitation and Wave. One of the fundamental screw-ups in LIGO instrumentation concerns not fully installing the latter concept. This is not Einstein's bad. This is a detection-related aspect, and is a major Kip Thorne screw-up. For a change, listen to people who actually know whereof they speak:

ACOUSTIC WAVES (Leonardo DaVinci)

$$c = \sqrt{\gamma \cdot \frac{p}{\rho}}$$

ELECTROMAGNETIC WAVES (James Clerk Maxwell)

$$v_{ph} = \frac{1}{\sqrt{\mu\epsilon}}$$

MAGNETOHYDRODYNAMIC WAVES (Hannes Alfvén)

$$v_A = \frac{B}{\sqrt{\mu_0 \rho}}$$

MAGNETOHYDROELECTRIC WAVES (Bibhas De)

$$V^2 = c^2 \left(\frac{1}{\chi} + \frac{v^2}{c^2} \right) \left(1 + \frac{1}{\chi} + \frac{v^2}{c^2} \right)^{-1}$$

Gut check

LIGO SIZE vs WAVELENGTH

Consider Kip Thorne's teaching on the similarities and differences between electromagnetic and gravitational waves. This is germane to detection of the waves:

The dominant mode of gravitational radiation is *quadrupolar*: it has a quadratic dependence on the positions of the generating charges, and causes a relative "shearing" of the positions of receiving charges. The dominant mode of electromagnetic radiation is *dipolar*: it has a linear dependence on the positions of the generating charges, and creates a relative translation of the positions of receiving charges.

Now, exactly what physics here exempts GW detectors ("receiving charges") from the fundamental limitation that EM wave detectors have? In the latter case a detector whose size is infinitely small compared to the wavelength would not be able to detect the wave at all. Even if it can sense the wave marginally, it would have no directionality at all. But LIGO detector which is 100-1000 times smaller than the wavelength can work fine off the polarization of the GW, which requires great directionality! No explanation has ever been given for this strange assertion about GW exceptionalism, as with many other strange LIGO physics assertions. LIGO cannot detect GW, period. Because of its great length, LIGO can detect all sorts of geomagnetic disturbances.

Kip Thorne has been laying a lot of sham physics on us from a platform of great authority.

LIGO PHYSICS FOR YOUR KIDS

OK kids, let's talk about the LIGO discovery machine. Let me explain this in words only – without figures and equations. Imagine a metal cross with two equal arms. Lay it down on a table. Now gravitational wave (GW) comes down on the table. The LIGO machine theory says that, at any given instant of time, the wave compresses one arm and stretches the other arm. So the equal-length arms become of unequal lengths. Let us call this phenomenon *a differential effect*. LIGO reportedly measures the nonzero difference in the two lengths, and from this difference, infers the presence of the GW and deduces its properties.

This theory misses entirely the wave nature of gravitational wave. There are two lengths to be considered: The length of the arm of the cross, and the wavelength of the GW. When the arm length is less than about one-third the wavelength, the cross cannot feel the differential effect. The change in lengths of the arms will be equal, and approach zero.

The basic physics of waves says that when a physical structure encountered by a wave is smaller than about one-third the wavelength, the wave cannot "resolve" the structure. What this means in plain language is that the GW does not see the cross as an oriented two-armed structure, but sees it as a fuzzy dot. In the case of LIGO, the cross is infinitely small compared to the wavelength, and so **LIGO response can contain no information about GW** even if it exists and the theory of the differential effect is correct.

Clearly then, there is no way to salvage the LIGO machine. It is a billion-dollar piece of junk.

LIGO FRAUD IN PHYSICS GUT

I am no kind of genius, and yet when I first read the LIGO description, I went "OMG!" That is precisely the dilemma: So splendiferous an aura of genius has been hung around LIGO that we *hoi polloi* cannot see straight. But the truth is that we are not dealing here with supercalifragilisticexpialidocious geniuses. We are dealing with wily fraudsters. That realization is the beginning of wisdom. Once you are thus freed, you can readily sense the LIGO fraud in your physics gut.



LIGO's close electro-magnetic analogy is this: A crossed dipole antenna with arm length L much smaller than the wavelength λ ($L \ll \lambda$) is observing a radiation field in the sky that is unpolarized except that there is a small directionality to the polarization. In the plane perpendicular to the look direction, the electric field is slightly larger in one direction than the orthogonal direction. So, we may expect that if we difference the powers received by the two dipoles, we will have a small nonzero "signal". However, in reality the difference signal will be nearly zero, with no information about polarization. This is because under the condition $L \ll \lambda$, an antenna cannot discern anything about the wave (its direction or its polarization). *A probe must occupy a substantial portion of a wavelength to sense any property of the wave.* This is fundamental wave behavior. So here is not a conventional, if tough, discovery issue of measuring a small but meaningful signal (as they had us believe), but an elaborate scam to detect a totally irrelevant near-zero power level. One billion \$ and counting. NSF has made us feed and clothe a thousand fraudsters for four decades.

Duty to Inform

LIGO WAVE DIGEST I

A wave is known first by its wavelength λ . In order to find any property (strength, direction vector \mathbf{k} , polarization) of the wave, a detector size d must be a substantial fraction of the wavelength. This is basic physics. There is also true for gravitational wave (GW).

Let's call the LIGO physical antenna L . It operates not as an external object placed in a wave field, but as an intrinsic part of space itself. It might as well be an imagined L for our discussion. The actual LIGO detector is not the 2D L , but a volume V of space that encloses L . And here's where the wavelength comes in. When d is a substantial fraction of λ (typically $d \geq 1/3 \lambda$), this volume can sense the properties of the wave. So L would undergo the differential length change due to polarization, as LIGO describes. But when $d \ll \lambda$, this volume V is just a dot in the path of the wave, and cannot sense the wave properties. L does not undergo the differential length change.

So the LIGO physical detector, with $d \ll \lambda$, cannot work off the polarization of the wave. Were its design principles otherwise correct (they are not) and GW existed, this detector might show some response to the wave, but only a qualitative one.

LIGO WAVE DIGEST II

Any suggestion that conventional wave physics limitations do not apply to LIGO should be dismissed out of hand.

Because of what has been said in PART I, in even an idealized (no noise etc.), sufficiently sensitive LIGO, a waveform incident on the detector will not be faithfully or quantitatively reproduced at the detector output. The observed output waveform cannot mimic the input waveform.

Therefore, one cannot directly compare a theoretically deduced waveform presumed to be incident, with the observed output waveform, as LIGO does. This process bypasses the crucial link: *The input waveform deduced from observed output waveform*. It is this input waveform that should be compared with the theory waveform.

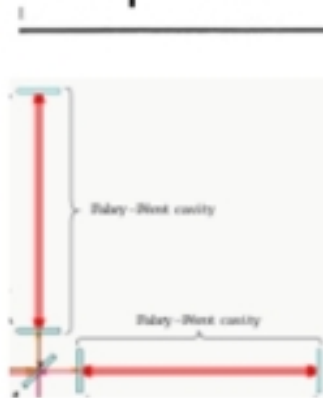
The deep-sixing of this crucial link – whose determination is the whole true object of the \$1.1 billion experiment – is one of the multiple drop-dead *conceptual* faults of LIGO.

In conventional experiments, the two instrumental waveforms are related by the *instrument transfer function*. LIGO does not have one. LIGO cannot, did not, and will never observe gravitational wave.

Gut check Part II

LIGO SIZE vs WAVELENGTH

Consider an electromagnetic wave detector (a dipole along x axis) and a gravitational wave detector (LIGO along x and y axis.) The EM wave or GW propagates along the z direction. Thus, the wavelength λ is a variation in the z direction. So, one may have difficulty seeing how λ figures in the detection process, when an antenna is in reception.



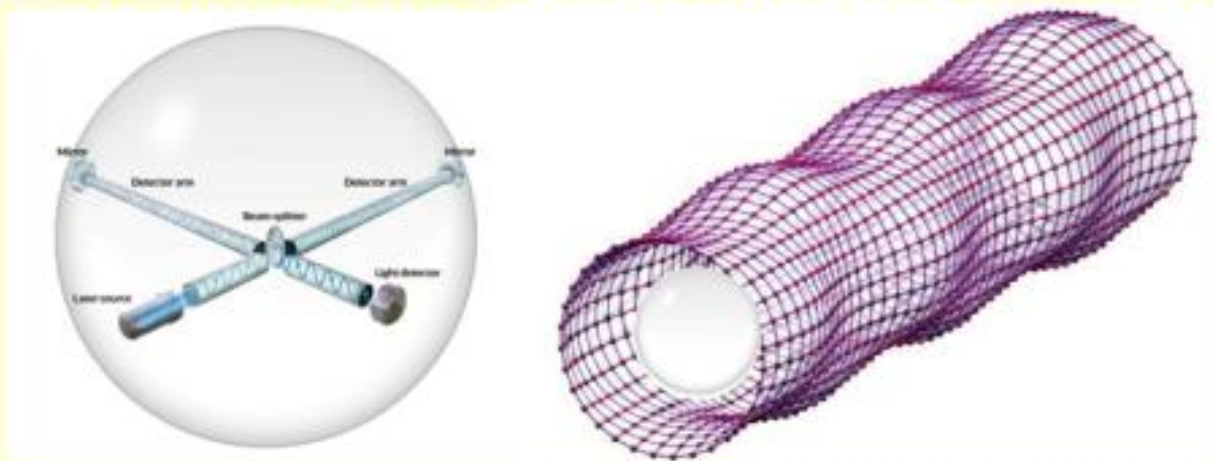
The EM antenna physically is a one-dimensional thing. But when it is in reception, its effective extent is a volume around it that contains non-radiating EM field. The size of this volume is dependent on the wavelength. This is how EM wave detection is dependent on λ .

For LIGO, it makes no physics sense to say the detector plane is infinitely thin and is not affected by what happens ahead of it and behind it the z direction. The effective detector is a volume of space (or spacetime) around the LIGO arms. (i.e. LIGO response depends on how the strain falls off or rises away from this plane in the z direction.) This is how GW detection is dependent on λ .

THE ESSENCE OF LIGO SCIENCE

Spacetime is a highly esoteric concept. I stand in awe of scientific minds that have mastered this concept and given us wormholes, time travel etc. They have given us an entire world of fiction and fantasy masquerading as physics. But when it comes to making spacetime shake hands with applied physics, that's where the true quality of these experts is put to test. Both Kip Thorne and Rainer Weiss failed miserably here. They got a gigantic endeavor started even as they were wallowing in their own misconceptions of relevant physics.

THE CORRECT LIGO DETECTION PHYSICS



The design of the L-shaped 2-D physical LIGO structure (in x-y plane, say) presupposes that its size d need not have any relationship to the wavelength λ of a GW in the z direction; that d is determined entirely by other criteria. But this L is not the detector. The actual detector is *a volume of space* defined by L. In the second figure, you can compare this volume (inset) with the manifest λ . The x, y, and z responses of the volume are inseparable. LIGO is totally subject to d -vs- λ limitations. If $d \ll \lambda$, the detector cannot sense any property of the GW, especially polarization. This is the case with LIGO, fatally so.

DUTY TO WARN

A world education message from Bibhas De 03/13/2019

We are dealing with the distortion of a volume of spacetime, and the distortion of L only as an integral part of that blob.

LIGO'S LUBRICATED SPACETIME

National Science Foundation is paying LIGO big bucks to come up with a new plan to painlessly bilk you over the next few decades:

4.2 Cosmic Explorer: a 40 km detector

Cosmic Explorer will use longer arm lengths and new technologies to achieve a factor of 10 or more strain sensitivity improvement over the current generation of gravitational-wave detectors.²⁰ As with LIGO, we envision a staged program for Cosmic Explorer (CE):

Imagine that! The $L = 4$ km LIGO will be followed by a $L = 40$ km LIGO (also ground-based) – directed at the same wavelength region of gravitational waves. Now, the 4 km LIGO never observed any gravitational waves. That's as unambiguous a scientific truth as you will ever find. So how do you figure that the sensitivity increases 10-fold? Ten times what? Where is the expression of this sensitivity as a function L and λ_g , the only physics that can give you that factor? There is no such analysis because the Ligonauts never understood wave behavior. To them the LIGO detector is a two-dimensional jobbie – two arms in an infinitely thin plane of space (or spacetime) that is so well-lubricated on each side that it slides freely against the adjacent space. As I explained, a detector is an integral volume, not a plane. Kip's "second career" should've been his first.

Bibhas De 06/17/2019

LIGO WAVELENGTH-STRETCHING

The issue: As each LIGO arm of length L ($=4$ km) stretches/contracts by ΔL as a gravitational wave (wavelength λ_{gw}) passes through, so does the wavelength λ_{laser} of laser light, at the same rate. What effect does this have on the interferometric phase shift $\Delta\phi$? **LIGO affirms wavelength-stretching but says it has no effect on $\Delta\phi$.**

Let us color a one-wavelength segment of the laser sine wave just as it leaves the beam splitter. The segment splits into two segments of half the power each, and travels along the two LIGO arms. Each will take a time-of-flight $T_{flight} = 2(L \pm \Delta L)/c$ to travel to its end mirror and return to the detector. When they meet here, they differ in phase by $\Delta\phi_1 = 2\pi(2\Delta L/\lambda_{laser})$ due to mirror "movements", and by $\Delta\phi_2 = 2\pi(2\Delta\lambda_{laser}/\lambda_{laser})$ due to wavelength change ($\Delta\lambda_{laser}$ is the change in λ_{laser} due to wavelength-stretching.)

The change ΔL happens in a time $T_{gw}/4$ where $T_{gw} (= \lambda_{gw}/c)$ is the time period of GW. In each arm, our laser wave segment spends the time T_{flight} during which it is shortened or lengthened. So, approximately

$$\Delta\lambda_{laser}/\Delta L \sim T_{flight}/(T_{gw}/4)$$

Or

$$\Delta\lambda_{laser}/\Delta L \sim 8L/\lambda_{gw}$$

When $L \ll \lambda_{gw}$, $\Delta\phi_1 \gg \Delta\phi_2$ and $\Delta\phi \approx \Delta\phi_1$. **This may be the conceptual basis of the LIGO argument above.** However, for LIGO T_{flight} calculation, $L \sim 4 \times 280$ km, and λ_{gw} may be ~ 1000 km, for example. Do the math!

Note that the segment can sequentially undergo both stretching and contraction, with an integral result $\Delta\phi_2$. Also relevant, some have said that the speed of light changes in the GW frame. **LIGO says it does not.**

LIGO SIZE vs WAVELENGTH

How Kip Thorne shot himself in the foot

LIGO has three length parameters: the arm length L ; the gravitational wave wavelength λ_{gw} , and laser wavelength λ_{laser} . Thorne adopted the design approach $L \ll \lambda_{gw}$, which was a fatal mistake because such a LIGO detector is insensitive to GW. However, LIGO is married to the condition $L \ll \lambda_{gw}$. The issue came up that just as L stretches and contracts as a GW passes through, so does λ_{laser} . As such, there would be no interferometric phase shift due to the GW. To this, Thorne replied:

“Does the wavelength of the light in the gravitational wave get stretched and squeezed the same manner as these mirrors move back and forth? ... The answer is no, the spacetime curvature influences the light in a different manner that it influences the mirror separations ... the influence on the light is negligible and it is only the mirrors that get moved back and forth and the light’s wavelength does not get changed at all ...”.

Valerio Faraoni (<https://arxiv.org/pdf/gr-qc/0702079.pdf>) elaborated that Thorne’s thesis is true only when $L \ll \lambda_{gw}$ (in the following $\partial x = \Delta L$, the mirror displacement; h_+ is GW strain: λ_{phys} is λ_{laser} , but a variable):

In the approximation $\lambda_{gw} \gg L$ the time dependence disappears and

$$\frac{\delta x}{L} = \frac{h_+(t=0)}{2}, \quad (4.2)$$

which is different from zero, while the percent variation of proper wavelength $\delta \lambda_{phys} / \lambda_{phys}$ for the laser light traveling in this arm is zero in this approximation.

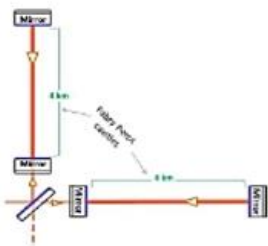
Thorne’s LIGO operation is restricted to the regime $L \ll \lambda_{gw}$, in which regime GW cannot be detected because of wave physics limitations.

LIGO SIZE vs WAVELENGTH

More muddle

My previous graphic (see below) explained how Kip Thorne's LIGO operation is restricted by his theory to the regime $L \ll \lambda_{gw}$, in which regime, however, gravitational wave cannot be detected because of wave physics limitations. Here L is the length of the laser run (4 km), and λ_{gw} is the wavelength of GW (~ 1000 km, for example).

However, there is another problem. The L for actual LIGO is not 4 km, but 4×280 km. Here is the reason:



This dilemma was fixed by adding something called "Fabry Perot cavities" to the basic Michelson design. The figure at left shows how a basic Michelson interferometer is modified to include Fabry Perot cavities. Compare this to the figure **above**. Each arm has a Fabry Perot 'cavity'. It is created by adding mirrors near the beam splitter that continually reflect parts of each laser beam back and forth within the 4 km long arms *about 280 times* before they are merged together again.

So, the length of the laser run is comparable to λ_{gw} . Thorne's theoretical criterion for LIGO operation to be valid was not applied to the actual LIGO discovery instrument. There may be other issues with this long a laser run.

Note however that this effective enlargement of the arm length does not help overcome the wave physics limitation (that LIGO cannot observe GW with $L \ll \lambda_{gw}$.) There, L refers to the *physical size* of the LIGO arm (4 km).

A world education message from Bibhas De 05/13/2019

When we are told by the physics establishment that Kip Thorne is the ultimate authority on gravitation or when Thorne tells us he devoted four years studying the LIGO instrument concept, we are discouraged from performing a critical evaluation of the concept ourselves. No scientific establishment should ever engage in such deterrence. What emerges now is that the inception of LIGO was botched in the areas of general relativity, gravitation and wave detection science as well as the design principles of scientific instrumentation for research. In every conceivable way!

The selling of LIGO discoveries was done with high atmospheric because the science was not sellable.

LIGO SCAMORAMA XVI

THE OCCULT OF THE THORNEWEISS CULT

Let me summarize in one graphic why the LIGO concept for detecting gravitational wave (GW) is a high level quackery from the get go. For this purpose we consider a textbook-idealized LIGO without any noise of any kind. Some unknown impetus produces a signal Δ . We need to identify this impetus as GW. Let

$X(t)$ = "displacement" of LIGO's X-mirror (with sign)

$Y(t)$ = "displacement" of LIGO's Y-mirror (with sign)

$\Delta = X(t) - Y(t)$ = LIGO signal

So a nonzero Δ can arise if one mirror is stationary and the other moves. Or both mirrors move as different functions of time. To identify the impetus as GW, we *must* demonstrate that X and Y are the same function of time, but 180° out of phase. To demonstrate this, we must *independently and simultaneously* measure the values X and Y , referred to one fixed location. This is precisely what LIGO cannot do as a GW passes by. LIGO is designed to never be able to identify GW. This is the end of the story. But let's go on exploring this thousand-genius quackery.

$L_\lambda = L/\lambda$ (L = length of a LIGO arm; λ = wavelength of GW)

$D_\lambda = D/\lambda$ (D = Straightline distance between two LIGO stations)

From the basic physics of waves, these conclusions follow:

(1). If $L_\lambda \lesssim 1/3$, LIGO cannot sense the polarization of GW (i.e., it is insensitive to the phase difference between X and Y).

(2). If $D_\lambda \lesssim 1/3$, LIGO cannot triangulate.

The factor $1/3$ is rooted in the fundamental limitation that a wave cannot resolve structures smaller than about a third of the wavelength.

For LIGO application, both conditions $L_\lambda \lesssim 1/3$ and $D_\lambda \lesssim 1/3$ hold.

To say that a match of the theory wiggle and the observed wiggle constitutes the proof that the impetus is GW is to substitute science fiction for science. It is to require a presumptive story to complement an instrument of scientific discovery.

Duty to Inform

A world education message from Bibhas De 02/16/2018

LIGO GRAVITATIONAL WAVE DISCOVERY REAFFIRMED BY



Ace data analysts at Perimeter Institute have *independently* confirmed LIGO discoveries. A fully vindicated Frans Pretorius of Princeton said that for more than a year, he and most of the physics community has been satisfied that "LIGO analysis, and its discovery, are sound." Now folks, here's little mundane *hoi polloi* physics for your consideration:

Displacement produced by GW, $\Delta x \sim 10^{-19}$ m

After amplification (x300) by LIGO, $\Delta x' \sim 10^{-16}$ m

LIGO laser wavelength, $\lambda \sim 10^{-6}$ m

So, the phase shift produced by GW between the two laser runs at the LIGO detector face:

$$\Delta\phi \sim 360 (\Delta x' / \lambda) \sim 3.6 \times 10^{-8} \text{ degree}$$

$$\text{LIGO GW signal strength} \sim \sin^2 (\Delta\phi) \equiv 0$$

The minimum detectable phase shift in laser interferometry is ~ 1 degree. How can one tease out of the LIGO data stream a picture perfect gravitational wave on the sky when the instrument on the ground has not detected any?

A world education message from Bibhas De 12/15/2018

Duty to Inform

LIGO SCAMORAMA XIII

FROM THE DEPTHS OF UNCERTAINTY FLOW DEFINITIVE DISCOVERIES

In order to detect gravitational wave, LIGO has “to measure a motion 10,000 times *smaller* than an atomic nucleus (the smallest measurement *ever* attempted by science)...” So say Kip Thorne’s groupies.



When a LIGO mirror moves in gravitational wave, let the uncertainty in its position be Δx .

Assuming that the Uncertainty Principle is applicable to this “motion” (If not, what is?), we have

$$\Delta x \Delta p \geq \hbar/2$$

We can write here the momentum uncertainty Δp as $m\Delta x/\tau$, where τ is the time period of the wave and m is the mass of the mirror. With $m = 40 \text{ kg}$, $\tau \sim 10^{-2} \text{ sec}$, we get

$$\Delta x \geq 10^{-19} \text{ m}$$

The diameter of the atomic nucleus is $\sim 10^{-15} \text{ m}$. Thus the motion x LIGO has to measure is 10^{-19} m , in the same range as the uncertainty Δx in the mirror position. And from the bourn of this uncertainty would flow picture-perfect agreement between theory and measurement, phenomenal details about what happened billions of years ago and billions of light years away, and phenomenally snap decision in Sweden to award the Nobel Prize.

So it seems that Kip Baba’s *Hare Krishnas* were measuring things that were fundamentally not measurable in physics, with a machine that was fundamentally a piece of crap.

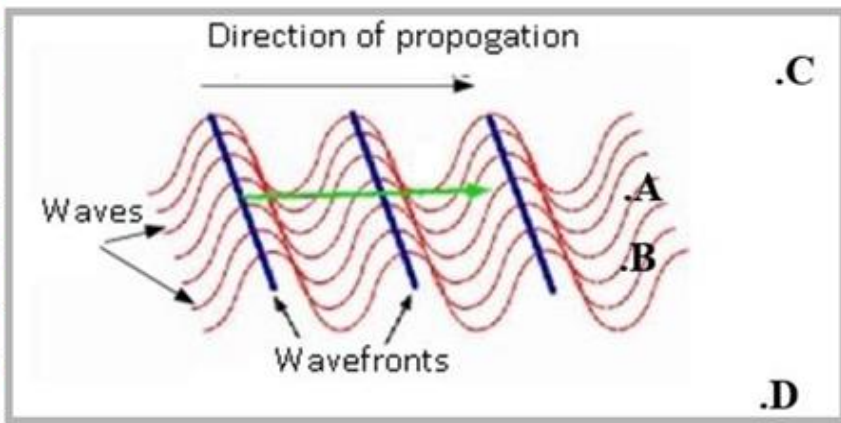
Duty to Inform

A world education message from Bibhas De 11/16/2017

PHYSICS OF TRIANGULATION

LIGO PHYSICS FOR YOUR KIDS II

OK kids, let's talk more about the LIGO discovery machine. Today we want to talk about *triangulation* – the process by which LIGO determines the direction of a source of gravitational wave (GW) on the sky. LIGO determines the time lags Δt between the arrivals of the GW at three stations on Earth. From these it pins down the direction of the GW.



We discuss a two-station case, but it can easily be extended to 3 stations. Consider the figure. A wave is coming at you, and you have set up two

stations A and B. We assume you know the velocity v of the wave. If you determine that the wave arrives Δt secs later at A than at B, draw a circle around A of radius $v\Delta t$. Now draw a line through B and touching the circle at A (tangential to the circle.) This line is your determined wavefront. You now know the direction of the wave. Do the same with C and D.

Now, as we discussed in the previous lesson, if the distance between two stations is roughly on the order of or smaller than the wavelength, the wave cannot resolve them, i.e. cannot see the two stations as separate locations. So any Δt that you measure will not be the proper time lag. If the station separation is much longer than the wavelength, you are fine to use this technique. AB is no good; CD is OK. LIGO includes the AB situation and cannot triangulate. But this point is irrelevant because LIGO cannot even detect GW.

LIGO FRAUD EXPLAINED IN PLAIN TEXT

So Kip Thorne makes two independent theoretical assumptions on the sky: (T1) Models of merging black holes; (T2) Emission of gravitational waves (GW) therefrom. Rainer Weiss makes two independent (of each other, and of T1 and T2) experimental assumptions on the ground: (W1) Two mirrors ~ 6 km apart move in invisible entanglement when GW passes by; (W2) Movements of the mirrors smaller than Heisenberg uncertainty can be measured as precision macroscopic lengths. All in all, we have four independent assumptions to validate before we can talk of a discovery.

Kip whips out his sky wiggles and emails them to Rai. Rai fires up his machine and presto, those sky wiggles appear at the readout of his computer. Gravitational wave *is discovered*, because this wiggle match is said to implicitly validate all four independent assumptions T1, T2, W1 and W2. But how? Mr. GW must have somehow whispered into the ears of Kippy Boy and Raister his travel tales of how, as he was making his trek from his birthplace to the LIGO readout, has experienced all the four effects along the way. Every unknown and unknowable (and highly questionable) effect invoked to make the discovery possible now stands attested to by the discovery itself! A kind of Jedi bootstrap? Or a Zen one-handed clap?

If any one of the four assumptions fails (so far none is validated), **LIGO readout can contain nothing about any GW**. But all this is academic anyway. Because the size of LIGO is infinitely small compared to the wavelength of the alleged GW, even an idealized LIGO (without any noise) is scientifically incapable of sensing GW, much less of reproducing the sky wiggle at its readout. That's just unavoidable basic physics. By this, **LIGO readout can contain nothing about any GW**. So, in slyly engineering the uncannily perfect wiggle match, the over-clever boys actually shot themselves in the foot. This match itself is the most telling evidence of fraud. This match is also what led to the Nobel Prize in Physics in 2017. Lord have mercy!

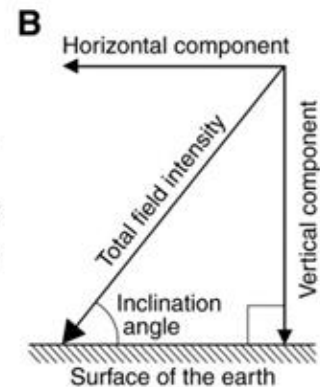
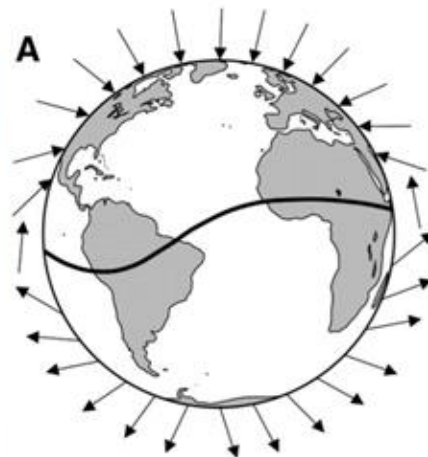
Duty to Inform

Bibhas De 10/10/2018

NO AWARENESS OF FACTS ON THE GROUND!

LIGO SCAMORAMA III

One of the most important considerations that needed to be considered decades ago while conceiving the LIGO instrument is the Earth's static magnetic field B which would wreak havoc on the instrument. Here's how:



LIGO's kilometers-long steel tubes are especially effective attractors of geomagnetic disturbances which induce time-varying electric currents I on the tube wall. As a result, a mechanical force proportional to $I \times B$ arises on the structure, causing it to mechanically vibrate. The tube as whole vibrates and along with it, everything mechanically connected to it vibrates.

Additionally, the geomagnetic disturbances penetrate inside the tube (no adequate shielding has been provide), and generate currents I in all metallic structures inside. Correspondingly, there is the force $\sim I \times B$ and the consequent jitter of the mirrors and the laser link.

While such vibrations are generally of no concern, they are of overwhelming importance in LIGO.

There is no evidence that the Ligonauts ever considered this effect in the four decades preceding their sham discovery, or in the two years following that discovery.

SPACE WEATHER

causes

BLACK HOLE MERGER

The term "space weather" refers to the variable conditions on the sun and in space that can influence the performance of technology we use on Earth. Extreme space weather could potentially cause damage to critical infrastructure – especially the electric grid – highlighting the importance of being prepared.

- www.ready.gov/space-weather

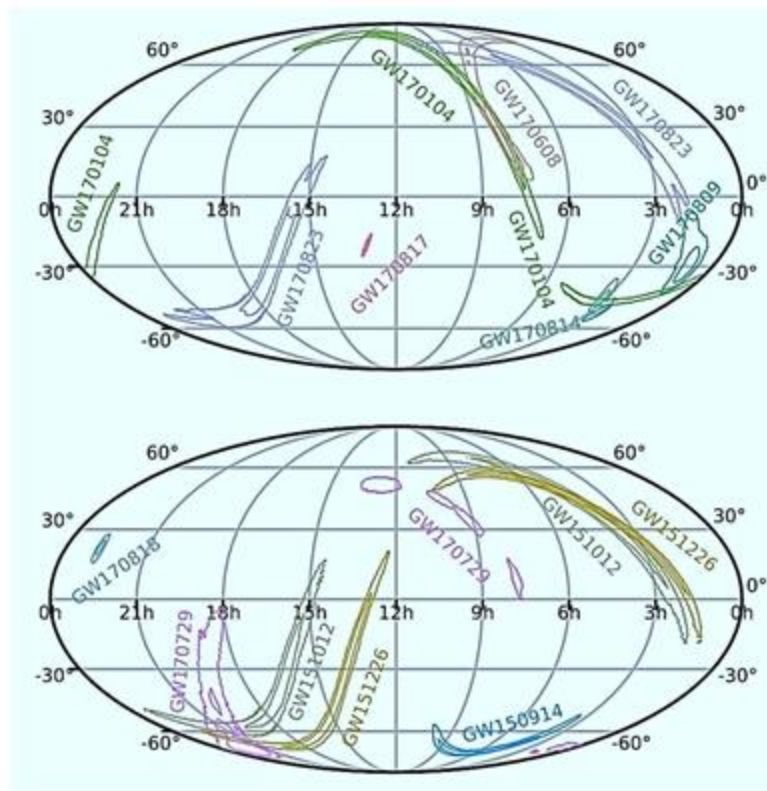
For LIGO, these include geomagnetic disturbances that have not to do with the sun and those that do. The problem is that while the ligo-nauts say the right words, they never understood *how* such disturbances affect their instrument. They analyzed the effect of charged particles from the sun pushing on the LIGO mirrors, and concluded that this effect is negligible! They set up their own straw man and defeat it.

Fluctuations of space weather induce time-varying electric currents \mathbf{I} in the metallic innards of LIGO. Because of the Earth's static magnetic field \mathbf{B} , these innards vibrate under the $\mathbf{I} \times \mathbf{B}$ force, and these vibrations are what affect LIGO. Thaddeus Gutierrez has shown that all LIGO detections to date – including that reported June 30, 2019 – are correlated to space weather.

Bibhas De 07/01/2019

FRAUDULENT DETECTION PHYSICS – FRAUDULENT TRIANGULATION PHYSICS – HEY PRESTO, THE THORNEWEISS UNIVERSE!

NSF bought you this "universe" for a billion dollars. It shows places where binary black holes popped a while ago. Enjoy it, you paid for it man!



When correct physics is applied to LIGO, it is seen that its design specifically prevents *the detection of gravitational wave*. Additionally, the LIGO science of triangulation which leads to the above LIGO diagram is false. NSF is long aware of worldwide criticisms of LIGO science by experts, and has encouraged LIGO to not respond to these. On December 5, 2018, the funding agency has issued this statement: "The accomplishments of NSF's LIGO and its international partners are a source of pride for the agency, and we expect even greater advances as LIGO's sensitivity becomes better and better in the coming year."

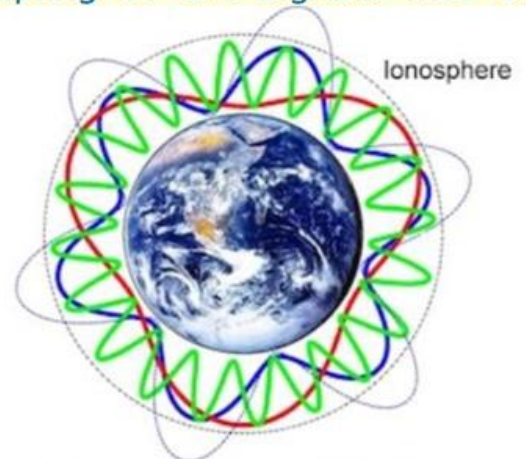
LIGO and Space Weather



LIGO sits smack in the middle of an electromagnetic (EM) maelstrom in terms of environmental signals and noises. Because LIGO is a very long conductor, it is an ideal attractor of space weather disturbances. Most everything that happens here can actuate LIGO in one way or another, and give rise to an output signal (through the Interferometry mechanism or bypassing it.) Besides direct coupling of EM signals into the

LIGO detector, there are generated electric currents in the metallic parts. In presence of the Earth's static magnetic field, these parts vibrate. These vibrations cause output signals. Thaddeus Gutierrez has importantly shown that every single LIGO detection to date can be linked to space weather. When a new optical telescope is planned, people look for a place as far away as possible from inhabited areas. Their equivalent of LIGO would be to place the telescope in Times Square on New Year's Eve. There is no indication that the ligonauts understand this uncharacterizable complexity that, for one of many factors, makes LIGO worthless as a GW detector.

Bibhas De 07/08/2019

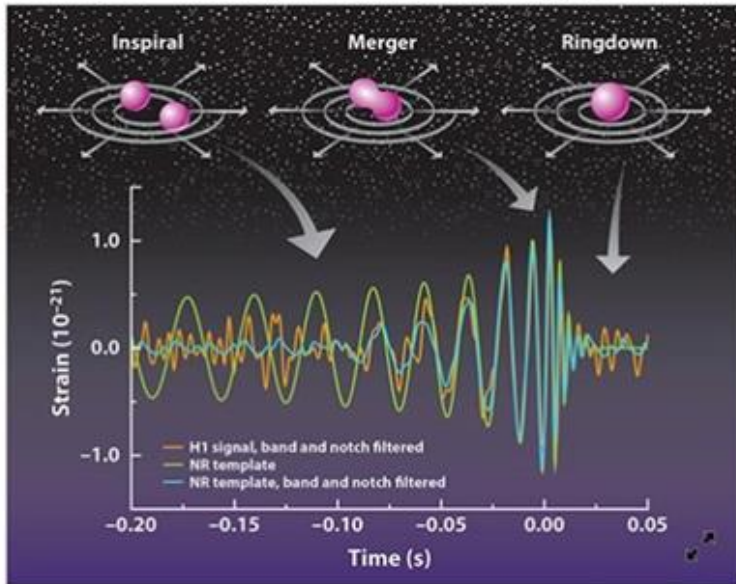


Electromagnetic waves created by lightning flashes and trapped between the ground and the ionosphere – here shown in blue, green, and red – circle around Earth, creating Schumann resonance. (Image Credit: NASA/Simoes)

LIGO SCAMORAMA XIV

Kip S. "Scheherazade" Thorne

The most impressive selling point of the LIGO discovery was how the theory wiggle and the observed wiggle matched – peak for peak, trough for trough, amplitude for amplitude, stage for stage. In truth, it was all a Scheherazade-like tale that Thorne wove. This match was absolutely a fiction, a very elaborate one. Scheherazade needed to save her young life, and Kip needed to save his old butt.



Take a length of wire and bend it in the exact shape of Kip's theory wiggle. Dip it in honey. Hang it out in your porch. After a couple of days you will find that it is completely covered with insects. So you have an experimental "insect wiggle". It perfectly matches the theory wiggle! Eureka! The LIGO match was a similar deception. The data was largely all noise, and from this shapeless noise was shaped the experimental wiggle, *guided by* the theory wiggle. This way you could fit any wiggle – even the profile of Pinocchio's face.

But there is a deeper truth. There should have been no scientific expectation in the first place for the theory wiggle to match the observed wiggle. Whatever impetus (wiggle) is incident on LIGO, and whatever wiggle LIGO reports at its readout, cannot resemble each other. I have explained all this in my book. There is no scientific basis for graphically comparing the theory wiggle with the observed wiggle. The very fact that such an astounding match was found between the two wiggles was the very indication of the gigantic fraud. The Nobel Prize notwithstanding. And all the yakking Princeton IAS-ians notwithstanding.

Duty to Inform

A world education message from Bibhas De 02/07/2018

(An excerpt from my book *UNCHALLENGED PRIVILEGE*)

There is a television advertisement about a brand of beer that is presented as so classy that pouring it into a glass from the tap with just the right head of foam is a matter of great professional pride for the bartender. Here the bar patron is sitting on the stool in the bar car of an express passenger train barreling down the tracks. As the bartender tries to pour the beer into a glass, the jerking motion of the train mars the foam head. He throws away the beer and starts with a fresh new glass. Again he is thwarted. With a grave face he excuses himself and goes out of the compartment for a bit. He comes back looking relaxed and pours the perfect glass of beer. He scrapes off the excess foam, making the head level with the rim of the glass. He offers it up to the patron with a look of great pride and even a smile just breaking. What happened? Well, it turns out that he went out and disconnected his bar car from the rest of the train which went on its way! The lone dining car was now gliding smoothly along the tracks without any jerking motion.

That is what Kip Thorne did. After years of frustrating failure and with time running out, he simply disconnected his theory car from the train of scientific procedure advancing on its tracks, and poured a fine glass of discovery quaff with a fine head of foam. But this was a classier glass of beer than Stella Artois. It cost more than one billion US dollars.



Stella Artois Comercial de TV Train.wmv



LIGO COURTROOM DRAMA: Trial Part 13

TRIAL PART 13

ON THE WITNESS STAND: Kip Stephen Thorne (for the Defendants)

VINO MOSCATO (Attorney for the Defendants): Professor Thorne, Congratulations on your Nobel Prize. I am just thrilled to be speaking to you, even if under these circumstances. Our jury is very fortunate to be hearing from not one, but two Nobel Laureates. I doubt if any greater scientific authority has gathered under a courtroom roof before. Now, Professor Thorne, do you stand by the five LIGO detections to date?

KIP STEPHEN THORNE: I do.

MOSCATO: And are you apprised of the issues that the so-called LIGO dissidents have raised about these discoveries?

THORNE: In a summary way.

MOSCATO: And what is your assessment of their objections?

THORNE: I did not find any substance in them.

MOSCATO: So would you say that, as far as the validity of the five detections is concerned, the body of objections can be dismissed?

THORNE: I would say that.

MOSCATO: Professor Thorne, who do you think is qualified to review the LIGO instrument?

THORNE: The same people who have reviewed and endorsed LIGO all these years: The members of the National Review Board, the referees of *The Physical Review Letters*, the selection panels of the many prizegiving bodies, and so on.

MOSCATO: So, throughout its history, LIGO has faced constant and competent vigilance. It has in fact faced the full brunt of the scientific process, with all its safeguards, with all the self-policing. Are all these correct?

THORNE: They are.

MOSCATO: And based on what you have been apprised on the LIGO dissidents, are they qualified to critique LIGO?

THORNE: Look, LIGO is a highly complex scientific program that has evolved over decades. You cannot just come in cold, and start poking holes. That is not a scientific activity.

MOSCATO: Do you think LIGO has any obligation to answer the dissidents?

THORNE: We will always answer criticisms that are properly posed in a proper way. We will answer them at a proper time and in a proper forum. But we simply cannot go answering everything that anyone posts on the Internet. That will be the death of scientific progress.

MOSCATO: Thank you, Professor Thorne. I have no further questions at this time. Your witness, Ms. Veritas.

ASSUMPTA VERITAS (Attorney for the Plaintiffs): Good Morning, Professor Thorne. You are the world's leading expert on gravitation and gravitational waves. Is that correct?

THORNE: I would say one of the experts.

VERITAS: Thank you. You are also a theoretical physicist and a physics educator. So is it correct to say that you are thoroughly knowledgeable on the general subject of wave behavior?

THORNE: Yes.

VERITAS: Is it correct to say that the fundamental aspects of known wave behavior apply to gravitational wave?

THORNE: Up to a point. But we have to consider each specific comparison in detail.

VERITAS: OK, so let's do such a specific comparison. Suppose an electromagnetic wave is traveling past us. It is linearly polarized. Its wavelength is 10 meters. Suppose I have a linear dipole antenna 1 centimeter long. By orienting this antenna, would I be able to determine the plane of polarization?

THORNE: I would say no. The antenna is too small for this purpose.

VERITAS: Can you elaborate?

THORNE: A wave cannot resolve structures that are smaller than about one-third the wavelength. Let's look at it this way. You are looking at your antenna in the light of that wave. Then all you will see is just a tiny blur, with no definition. Therefore such an antenna cannot determine the polarization and the direction of travel.

VERITAS: And would this be true for a gravitational wave? Do gravitational waves have polarization?

THORNE: Yes, it would be true. And gravitational waves also have states of polarization. In LIGO, for instance, polarization causes one arm to expand while the other arm contracts, and vice versa. This is why LIGO works in the first place.

VERITAS: Thank you for that explanation of polarization. So we now understand that without polarization there would be no LIGO. Now, Professor Thorne, what is the typical dimension of the LIGO antenna?

THORNE: Four kilometers.

VERITAS: And what is the typical wavelength of the gravitational wave LIGO is trying to detect?

THORNE: It is thousands of kilometers.

VERITAS: So LIGO is much smaller than the wavelength. How can LIGO see the state of polarization?

THORNE: Well .. er .. LIGO accumulates measurements many times, making the effective length of the LIGO arm 1120 kilometers. So, LIGO is not small compared to the wavelength after all.

VERITAS: Are you saying that the fundamental physics limitation of small antennas you have just explained can be defeated by accumulating measurement many times?

THORNE: It is more complicated than that.

VERITAS: OK, let us go back to the electromagnetic wave example. If I use a storage-type oscilloscope to accumulate measurements with that small antenna, will I be able to determine the plane of polarization of the wave?

THORNE: Well... er... I cannot say right offhand.

VERITAS: Then I will say. The answer is a definite no. You cannot defeat physics of waves this way. The same is true for gravitational wave. You cannot use an antenna that is a thousand times smaller than a wavelength to sense polarization. From the point of the incoming wave, your antenna is just an indistinct

speck. And since sensing polarization is how LIGO works, it is not a valid instrument. Do you agree with this statement?

THORNE: No. The scientific establishment has accepted the LIGO results.

VERITAS: Is that your entire answer to the physics fallacy at the very core of LIGO I have just pointed out?

THORNE: Yes.

VERITAS: Your Honor, I have no further questions.

JUDGE: Redirect, Mr. Moscato?

MOSCATO: Yes, Your Honor. Professor Thorne, is it not true that not only the entire scientific establishment agrees with you, but that the Royal Swedish Academy of Sciences agrees with you solidly enough to give you the Nobel Prize? Isn't it true that scientific consensus is as total on LIGO as it has ever been on anything?

THORNE: It is true.

MOSCATO: No further questions.

JUDGE: The witness is excused.

~^~^~^~

LIGO TAKEDOWN

11 FEBRUARY 2016

LIGO discovery of gravitational waves announced.

12 FEBRUARY 2016

Bibhas De takes one look and writes in his blog *The Dreamheron Chronicles* that the signals are most likely due to some type of geometric disturbance.

16 FEBRUARUY 2016

Bibhas De finds time to take a closer look and appends the same blog post saying that the source is likely lightning.

12 JULY 2017

Impact of correlated magnetic noise on the detection of stochastic gravitational waves: Estimation based on a simple analytical model

Yoshiaki Himemoto and Atsushi Taruya

It has been advocated, however, that the global magnetic fields in the Earth-ionosphere cavity produce the environmental disturbances at low-frequency bands, known as Schumann resonances, which potentially couple with GW detectors. In this paper, we present a simple analytical model to estimate its impact on the detection of stochastic GWs. The model crucially depends on the geometry of the detector pair through the directional coupling, and we investigate the basic properties of the correlated magnetic noise based on the analytic expressions. The model reproduces the major trend of the recently measured global correlation between the GW detectors via magnetometer. The estimated values of the impact of correlated noise also match those obtained from the measurement.

27 JULY 2017

Alleged correlated noise in LIGO data and the Schumann resonance transients

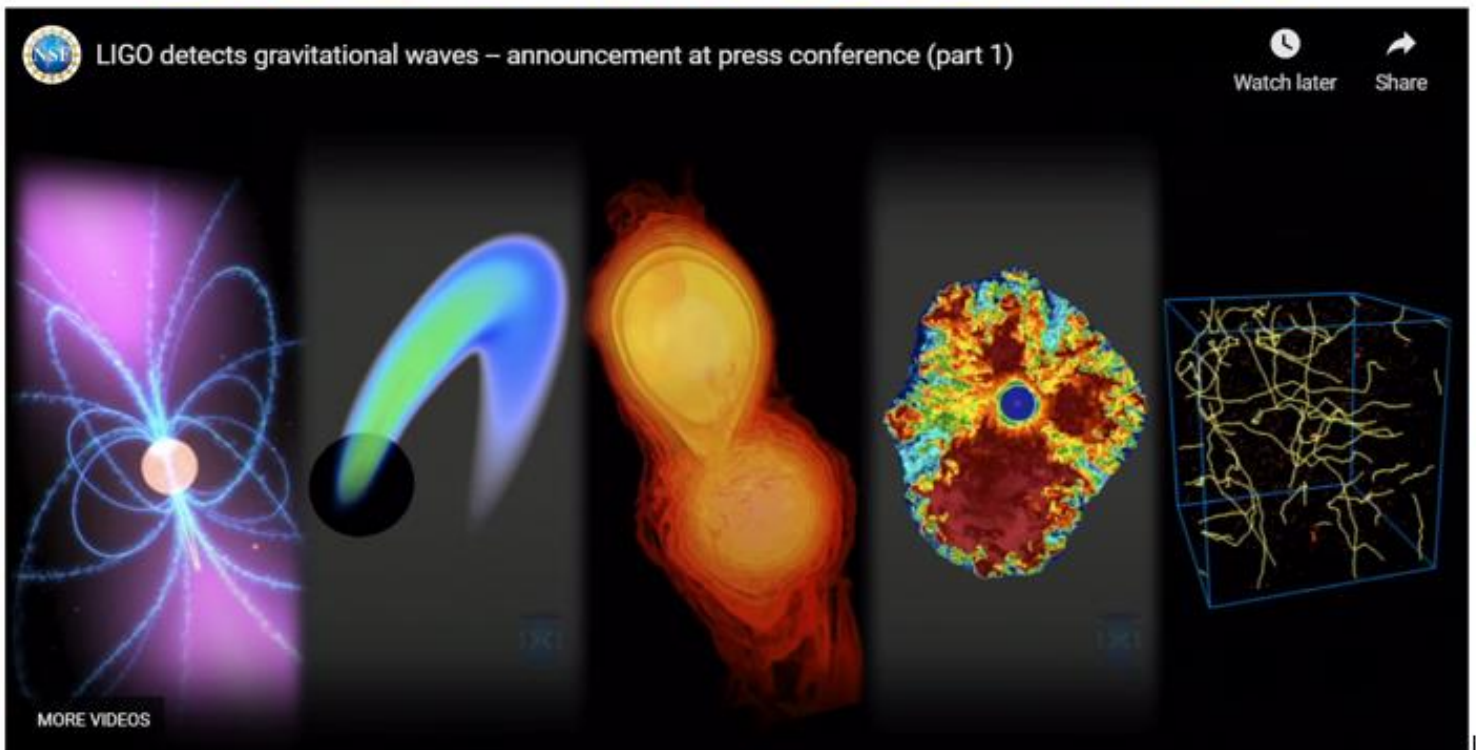
Z.K. Silagadze

We argue that the Schumann resonance transients excited by strong lightnings and Q-bursts in Africa will have just this time lag of about 7~ms. Therefore if the correlated noise related to the Schumann resonance transients is indeed present in the LIGO data, its "African part" will show just the proper time-delay and its coincidence with the gravitational-wave time delay is only a coincidence.

THE GASLIGHT GANG

The following pithy diagram reveals an agenda in total physics corruption: To leverage the three pet sciences – Black Holes, Big Bang and String Theory – on one another. A showy but dud observatory is being used as a stage prop to gaslight the world into simultaneously accepting as real the mindscapes of Kip Thorne, his like-minded buddy David Gross, and Gross's student Edward Witten. This point can be best appreciated if you consider this diagram together with the two diagrams that follows it.

LIGO IS STRING OBSERVATORY



Kip Thorne says in this video about LIGO targets that it will look for gravitational waves from "Giant Strings that reach across the universe. They're thought to have been created by the inflationary expansion of the fundamental strings that are the building blocks of all matter that expanded through inflation at the beginning of the universe."

THE DEEP, DEEP INTELLECTUAL SLEAZE

DAVID GROSS and KIP THORNE



Motive forces in historical physics corruption

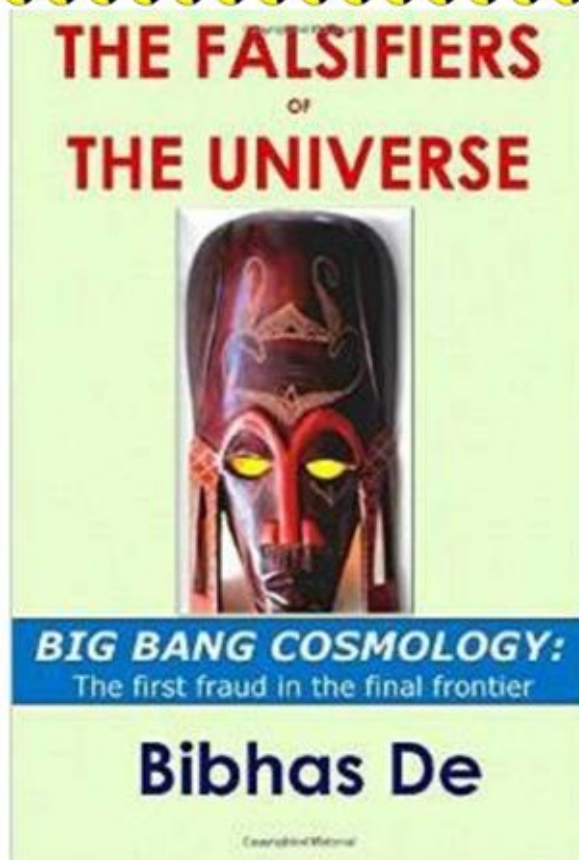
Here you can see the like-minded duo hanging out – real cool – on Pedo Island in 2006. Below you can see that Gross was a specially invited guest at the Nobel Award ceremonies in 2017 for Thorne's fraud discovery. This is your sad sad world. But I am fixing it for you, gratis.

A public service message from Bibhas De 12/01/2021



2017 Nobel Prize Award Ceremony

DAVID GROSS IS A DYNASTIC CORRUPTOR



UNDER THE AEGIS OF THE GODDESS OF TRUTH
THE AUTHOR INVESTIGATES
BIG BANG COSMOLOGISTS

Excerpts from the book:

Slowly abject scientific quackery had morphed into diabolic deceit. Increasingly strident rhetoric about advanced space-age technology and fantastic measurement accuracy was made to swirl around the deceitful discovery. Every power group that could be mobilized to protect the enterprise was mobilized to protect it. Every accolade that could be bestowed to whitewash over it was bestowed to whitewash over it.

It was a very dark chapter of science.

There is a Bengali proverb about sleaziness:
Lewd dancing going on behind the veil of modesty.
Here we have an entire phantasmagoric orgy being played out on the world stage – among the noblest of noble intellectuals. Taxpayers are footing the bill.



DAVID GROSS, *Physics Nobel Laureate*

David Gross received the Nobel Prize for Physics in 2004 for his work in particle physics. He then expanded his interest to String Theory and Big Bang cosmology. He in fact became a very vocal patron of both fields, and in that capacity, gave much positive media exposure to these fields. This is what he told Television's NOVA program about Big Bang: *And that explosion or hot state left remnants that we can observe today in the microwave background. So we know that that aspect of the theory is true.*

And since the Big Bang explosion did take place, he concluded, we need a new theory to understand the earliest times of that explosion. That is why, he said, we need String Theory.

So Gross is in fact pushing not just Big Bang theory or String Theory, but he is pushing them together as interrelated sciences. With the power of his Nobel Prize, he is leveraging one bad science on another bad science.

David Gross has continued zealously in his campaign to promote the fraudulent 2.7 K Big Bang blackbody. In the Lindau Nobel Laureates Meetings in July 2012 there was a discussion session involving Gross, Robert Laughlin (a physics Nobel Laureate) and some others. Gross forcefully averred: *We have to recognize that microwave background is the most perfect ever measured blackbody radiation – ever – any laboratory on Earth ...*

When Laughlin expressed doubt, Gross said: *You wanna make a little bet ...?*

The wager was made but Gross was never heard from again.

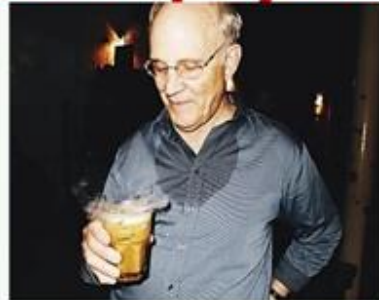
A world education message from Bibhas De 12/21/2015

SWEDISH COFFEE GUY, CIGARETTE-SMOKING MAN, ONE WITH A BEAUTIFUL QUESTION

An unholy nexus in physics corruption



Ulf Danielsson



David Gross



Frank Wilczek

Be afraid of this most unholy nexus in intellectual corruption. Danielsson is being groomed as the new face of the awarding body of the Nobel Prize in Physics. He just helped Big Bang fraud James Peebles become a Nobelist, trashing in the process the Swedish physics legend Hannes Alfvén who rightly opposed Big Bang.

Gross got his Nobel Prize by trickery at the base level of theory-data comparison on a graph. His discovery is a sham. He is a major motive force in today's physics corruption movement worldwide. He forcefully backed Big Bang and LIGO – two Nobel-winning frauds. He will preach to you to protect our climate while smoking.

Wilczek, author of *A Beautiful Question* and a Nobelist for the above sham discovery, is an advisor to the Swedish physics establishment. When Wilczek speaks, the Swedes listen.

Danielsson and Wilczek are students of Gross from Princeton, a wellspring of fine physics fraud under God.

Bibhas De 12/29/2019

Nobel Prize Lessons

INSPIRATIONAL PROFILES OF CEREBRAL FRAUDS



The Swedish Nobel Committee for Physics 2017



Nils Mårtensson, Mats Larsson, David Haviland, Olga Botner, Thors Hans Hansson, Gunnar Ingelman

SITUATIONAL TRUTH

Boys and Girls, if you wish to succeed in today's Nobel-faked world, you should start by heeding the message of the 2017 Nobel Committee for Physics. I am sure they teach the same message to their sons and daughters and grandkids. The message – loud and clear – is this:

Always avoid certain unsavory characters represented by the LIGO dissidents. They are an impediment in the way of great exploration and great discovery. They just plain tell truth through their teeth.

Take that German dude. He was hung up on the (correct) issue that the LIGO instrument is uncalibrated and so its results are not valid. Such nitpicking!

And there was this group from Denmark that found (correctly) that the LIGO data analysis was faulty, and therefore LIGO theory-experiment match was invalid. Talk of minutiae-minders!

So discount all such unimaginative people. The Nobel organization does. Understand the high principle of situational truth that underpins LIGO high science. It says that you must break away from the shackles of bread-and-butter science and engineering, and give yourself unlimited imaginative latitude to make the grand discoveries possible. This should be your New Year's resolution.

Duty to Inform

A world education message from Bibhas De 12/22/2017

KIP THORNE AND THE BLACK HOLE IMAGE

Kip Thorne was at the unveiling of the very first “photograph” of a black hole taken by the Event Horizon Telescope. He swallowed this hook, line and sinker. He even commented on the discrepancy of this reality and the black hole of his imagination (see below).



This photograph was a patent fraud. If Thorne had any concept of how his frou-frou physics of black hole should interface properly with real-life instrument science, he would have instantly developed

reservations. He should have been the very first person to question the image if he really was on the ball.

So here is more proof of what I said about his inadequacy in conceiving LIGO. His perceived scientific authority in this area is totally bogus.

“Christopher Nolan omitted that brightening because the human eye would likely not be able to discern the brightness differences on the two sides of the hole when the overall brightness is so extreme,” Kip Thorne, Cal Tech physicist and advisor on the film Interstellar, told Gizmodo.

WHAT THORNE FAILED TO UNDERSTAND ABOUT EHT:

More than any other physicists in the world, Kip Thorne knows that the image field surrounding a black hole "disc" is a completely featureless (imaging-wise) expanse in theory. Under this circumstance you cannot image the disc with any higher resolution than the interferometer beam. He should have known instantly that the image was a fraud. So, while Thorne is a great physics generalist and can explore unknown territories as long as his findings can never be tested, he fails whenever he comes up against real-life test. Simply put, whenever he puts his money where his mouth is, he loses.

PEDAGOGY ON BLACK HOLE PHOTO FRAUD (The Event Horizon Telescope Discovery)

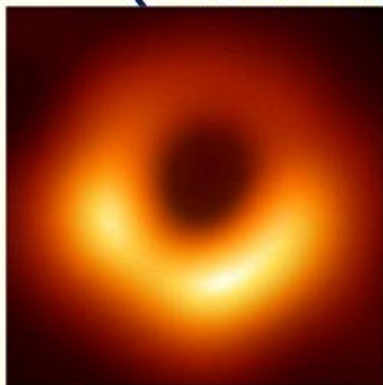


FIGURE A

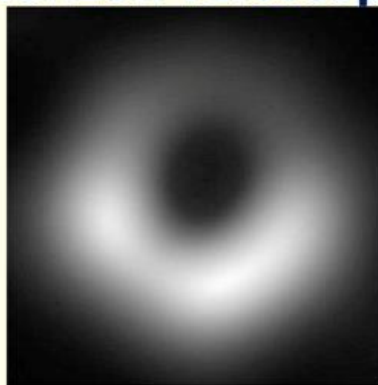


FIGURE B

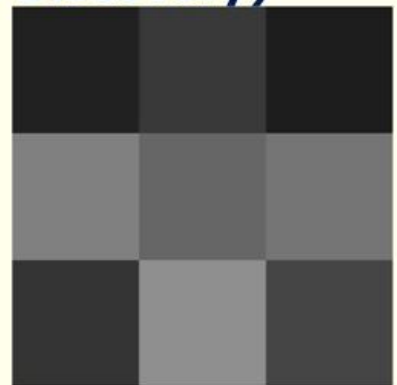


FIGURE C

FIGURE A: The supercalifragilisticexpialidocious black hole photo the world saw.

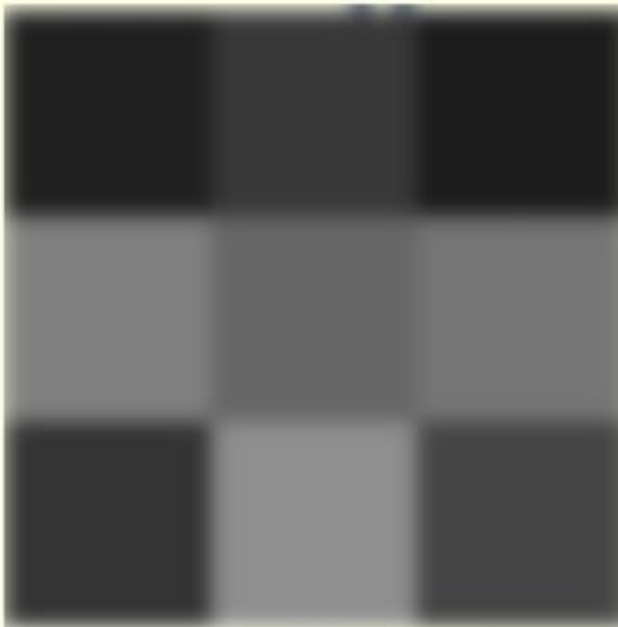
FIGURE B: Figure A converted to greyscale. This is the only scientific scale the EHT is capable of giving you.

FIGURE C: Figure B pixelated to a 3x3 field. Each box represents the resolution the EHT was capable of, and corresponds to roughly the HPBW (Half Power Beam Width) or some similar measure of the interferometer beam.

Figure C (if made much noisier) represents the kind of image the EHT network *could* obtain. It represents a total failure of the whole project. They did not achieve the resolution needed to image the field. You cannot obtain any better image than Figure C by making more scans or doing stuff on computer. You cannot present a figure thus derived as a discovery. Figure C → Figure A is the fraud.

EVENT HORIZON TELESCOPE RESOLUTION

Much has been said about *Very Long Baseline Interferometry*, *Aperture Synthesis* and *Deconvolution* which all help the EHT achieve enormously higher resolution than just the interferometric beam. But you cannot do this stuff when you have only two or three beamwidths across the "Black Hole" field you are imaging. More correctly, your computer program may give you some image, but it is garbage.



This is a cartoon figure I have made to explain the black hole photo. This figure represents the extent of the field of the orange-colored black hole image the world saw. In this field, the EHT could give you at most nine pixels. Each pixel corresponds to the size of the EHT beam

cross-section (which may be actually circular to oval). In each pixel, the EHT gives you one number for the intensity. You can represent these numbers in greyscale. However, because each number has a large error bar, any correlation between adjacent pixels is lost.

But that is pretty much all EHT can give you. You may make many scans crisscrossing this image and acquire many incoherent wiggles, but how does that help?

THE ROOTS OF LIGO

(The untold story behind 2017 Nobel Prize in Physics)

In the early 1960s, Princeton professor Robert Dicke was on a mission. One way or another, he would discover the predicted 3 K blackbody in the sky and clinch Big Bang Cosmology. He did not have to wait long. In 1964 he heard that two guys named Penzias and Wilson had observed an unexpected radiation component in the sky. It was an observation at a single frequency very far from the peak of the 3 K blackbody spectrum. No matter. Dicke got together with the two guys and passed this off as the discovery of the blackbody. The Nobel Prize followed for Penzias and Wilson in 1978.

Robert Dicke had started a process to transform the physics establishment to where no one would notice the blatancy with which grand discoveries would be made.

Dicke accordingly had taken two other boys under his wings. The boy Rai would become the science leader of the COBE Satellite program. He greatly embellished the Guru's fraud and discovered the entire blackbody spectrum in the sky. The Nobel Prize for that discovery would follow in 2006. But Rai was not done.

In 1975, Rai and the other boy Kip would share a hotel room in Washington DC. That night around the minibar the fate of your Universe was sealed. Four decades later the LIGO discoveries started rolling out. The physics establishment was now an integral part of the blatant fraud. For they each had been cycled through a pod.

THE GREAT COSMOLOGY SCAMS

The seemingly unrelated **Cosmic Blackbody scam** and the **Blackhole Merger scam** have common roots deep down



Robert Dicke manipulated Arno Penzias and Robert Wilson to pass off the Penzias-Wilson accidental observation of microwave background as the Big Bang blackbody that Dicke was trying to promote just then



George Gamow, an originator of the idea of Big Bang blackbody and the original Big Bang popularizer, was a guru to blackhole scammer Kip Thorne
“I was much influenced by a guy named by George Gamow who was a cosmologist in the early 20th century. It was his writing that I’ve been able to pass on to the next generation.” -Kip Thorne



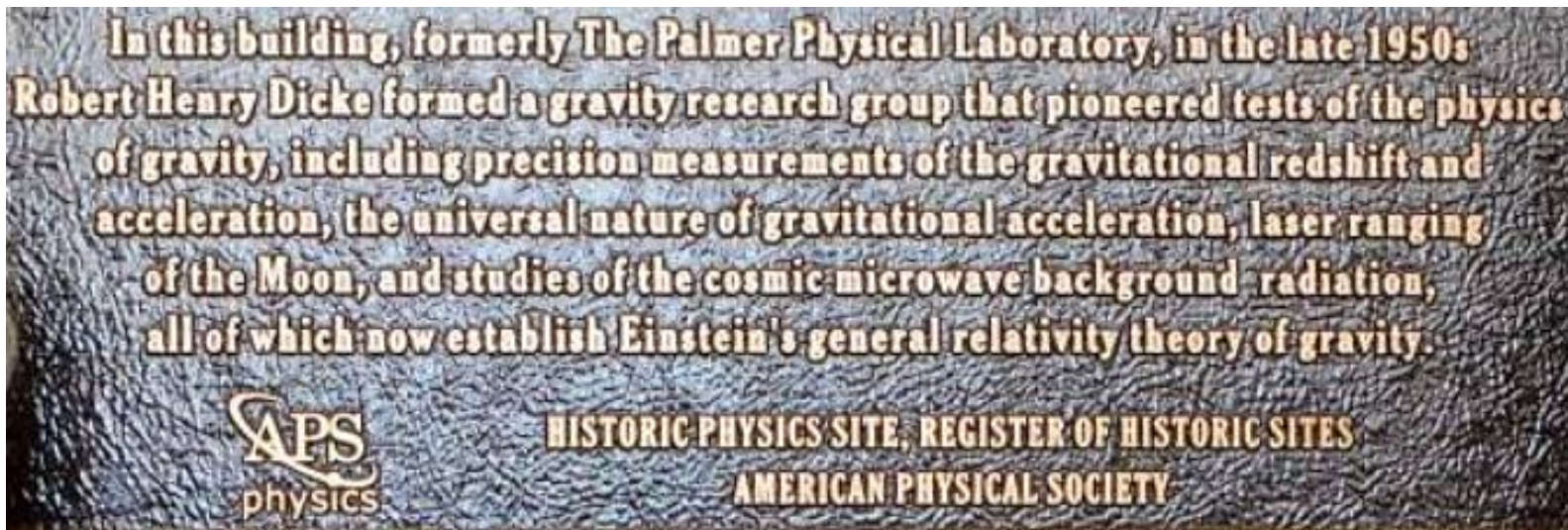
Thorne and Rainer Weiss (extreme right), joint LIGO blackhole scammers, were associates of Dicke the blackbody scammer
“I’d met and had been a member also of Robert Dickie’s experimental group which played a major role in the discovery of the cosmic microwave background. ...

So I was tied into that group. Rai Weiss was in that group. He was a postdoc when I was graduate student, so we met there.” -Kip Thorne



Blackhole scammer Weiss was the leader of the COBE satellite team that included John Mather and George Smoot, blackbody scammers

WORTHY DISCIPLES OF ROBERT DICKE

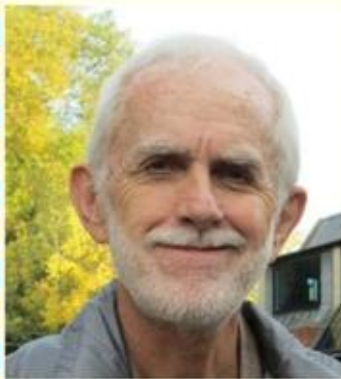


Kip Thorne also pushed the bogus fields of Big Bang inflation and CMB as Big Bang relic radiation: "The so-called "B-mode" polarization of the cosmic microwave background is a very promising technique for looking for primordial gravitational waves with extremely low frequencies (periods of millions to billions of years)."

A sampling of what vaunted Thorne-minted PhDs do.

PROVING EINSTEIN RIGHT: **A veritable industry**

The media headlines make it clear that LIGO's main mission is to prove Einstein right, almost on a weekly basis. Why this dead guy needs so much "proving right", I cannot say. Consider two recent media reports:



Clifford Will and his colleagues calculated the heck out of space weather data and concluded that Einstein was a good scientist to a second order of approximation.



Saul Teukolsky and a barber-shop quartet used a great deal of your money to calculate the stuffings out of space weather data, to show black holes are totally bald. Einstein – right again!

What's up with these guys, you ask? They are both Ph. D. students of Kip Thorne.

Now I am fixing to analyze space weather data at an even deeper level to detect god's emanation. But I will not take your money. My service to you is always gratis.

Bibhas De 09/15/2019

THE BLOCKBUSTER THAT DID NOT GET MADE

Flush with his Nobel fame, Thorne wanted to produce another sci-fi blockbuster. He said in China he had a screenwriter, a studio, and composer Hans Zimmer lined up. He was looking for a director. But the movie has not happened. Maybe his fame is unraveling!

THORNE-HAWKING BLOCKBUSTER



LIGO Nobelist Kip Thorne is fired up by a noble passion. He wants to inspire your young'uns. He has determined that the most effective way to do so is to make a science fiction movie about time travel. He has a script developed by him and Stephen Hawking. How did Hawking (whose name alone guarantees Box Office success) "work together" with Thorne to produce an entire movie script? Well, Hawking reportedly discussed a "film synopsis" with Thorne. Hawking of course is not here to corroborate this commercially important backstory, and 'synopsis' could mean anything. I suppose Hawking's estate will get a cut. A machine translation of a Chinese report (Nov 2018):

Now that the deceased (Hawking) has gone, Thorne admits that it is very regrettable that he and Hawking have never co-authored a thesis, but they have worked together to create a film synopsis. "I hope to bring this synopsis to the screen in the future."

Old science fraud Kippy Boy is fixing to convert his Nobel fame and his association with Hawking to hard cash. He has done his homework and noted that his first involvement with science fiction, *Interstellar*, sold 100 million tickets worldwide. His second work of science fiction – the LIGO discovery – brought in a whole bunch of Swedish kroners, and the commercializable fame. He's now fixing to rake it in from this third science fiction.

BRISK NOBEL COMMERCE

In my younger days I had occasion to watch late-late night TV, especially badly acted, badly directed, badly scripted horror movies. They had a charm of their own. These were interspersed with commercials: Old celebrity actors selling real estate or something. It made sense: Rake in as much money as you can when you still can and however you can.

KIP THORNE'S THIRD CAREER

Anything to earn a lecture fee?



ZHUHAI, China-(BUSINESS WIRE)-On July 23th, 2019, BY-HEALTH Nutrition Exploratorium held its opening ceremony in Zhuhai Sanzao District. Many industry experts including Nobel laureate in Physics, Kip Thorne, attended and shared their understanding and expectation for the future of personalized health management plan.

08/21/2019

KIP THORNE DOIN' BRISK NOBEL COMMERCE

A while ago you saw a photo of Kip Thorne on a garish stage in China with some Chinese businesspeople, selling some type of health product. His movie business designed to take off from the Nobel fame does not seem to have panned out so far. But he *is* selling Nobel merchandise. He sat down with the eBay dealer and signed a bunch of photographs, taking care to use suitable ink for each photo background. What is his share of the \$99.95 a pop?



Kip Thorne 2017 Nobel Prize
Physics Signed Autograph 8...
\$99.95



Kip Thorne 2017 Nobel Prize
Physics Signed Autograph 8...
\$99.95



Kip Thorne 2017 Nobel Prize
Physics Signed Autograph 8...
\$99.95



Kip Thorne 2017 Nobel Prize
Physics Signed Autograph 8...
\$99.95

While other Nobel Laureates' autographed paraphernalia are also selling, they do not mostly seem to have been signed mass-scale for planned commerce. Thorne got ~ \$1.8 million in prize money alone, on top of his *Interstellar* money, book royalty, ...

12/04/2019

A Nobel Laureate is of course free to make money from his Nobel fame. This is nobody else's business. But one certainly gets the impression that Thorne is a dollars-and-cents man and not so much the head-in-the-cloud science pathfinder he is portrayed for us to be. This point is relevant because the fake scientific discoverers today are being sold with hype and with impression management. We must cut through all that haze and look at how genuine an intellectual the real person is.

THE TAKE

LIGO leaders scammed the world with a billion-dollar chest of public money (NSF). Now they sit back and watch tycoons' money flow into their personal bank accounts.



KIP THORNE
Caltech

RAINER WEISS
MIT

BREAKTHROUGH PRIZE

\$333, 333

\$333,333

SHAW PRIZE

\$400,000

\$400,000

GRUBER PRIZE

\$160,000

\$160,000

KAVLI PRIZE

\$333,333

\$333,333

HARVEY PRIZE

\$ 25,000

\$ 25,000

Interim total

\$1,251,666

\$1,251,666

ALL THESE PRIZES AND A GREAT DEAL MORE WERE SHOWERED UPON THE LIGO LEADERS BY THEIR POWER-BROKER COLLEAGUES WHO DUPED THE GULLIBLE TYCOON FOUNDATIONS, EVEN AS THE LIGO FRAUD STOOD FULLY EXPOSED BY SCIENTISTS OUTSIDE THE MAINSTREAM. THE LIGO INSTRUMENT IS A COMPLETE WACKO JOB WHICH HAS BEEN PROMOTED AS THE HALLMARK OF ULTIMATE GENIUS. THIS IS RAINER WEISS'S SECOND SHEPHERDING OF GIGANTIC INSTRUMENT FRAUD, AFTER THE \$0.4 bn COBE SATELLITE!

CLOAK OF SAGACITY: QUOTABLE QUOTES

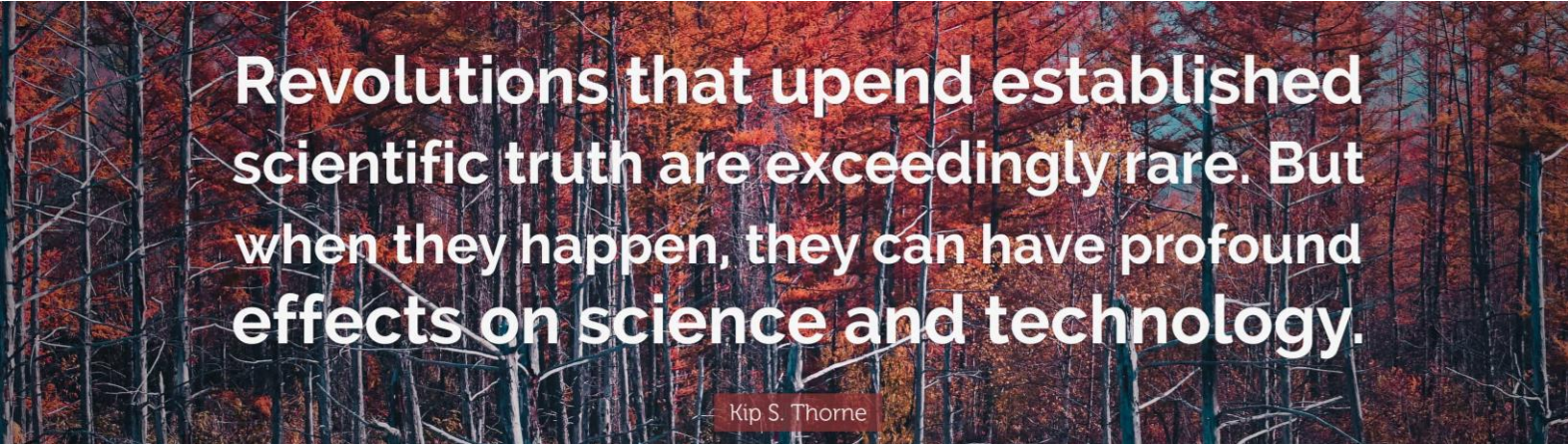
I am a figure of history.

As a child and later as a teenager, I was motivated to become a scientist by reading science fiction by Isaac Asimov, Robert Heinlein, and others, and popular science books by Asimov and the physicist George Gamow. To them I owe so much. I've long wanted to repay that debt by passing their message on to the next generation; by enticing youths and adults alike into the world of science, real science; by explaining to nonscientists how science works, and what great power it brings to us as individuals, to our civilization, and to the human race.

**I DO NOT ASPIRE TO A HISTORIAN'S
STANDARDS OF COMPLETENESS,
ACCURACY, OR IMPARTIALITY.**

- KIP THORNE -

LIBQUOTES.COM



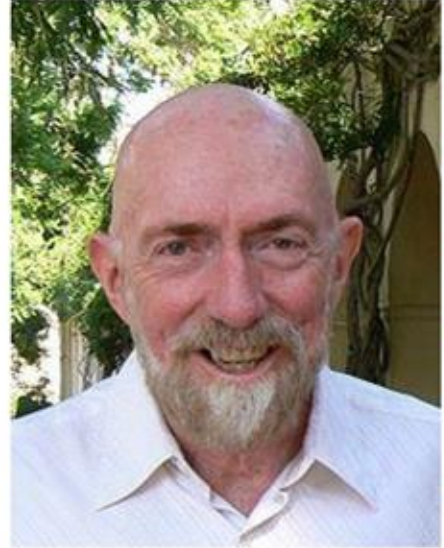
**Revolutions that upend established
scientific truth are exceedingly rare. But
when they happen, they can have profound
effects on science and technology.**

Kip S. Thorne

KIP STEPHEN THORNE, 2017 Physics Nobel Laureate

THE SOUPED-UP GENIUS

Kip Thorne of Caltech received the Nobel Prize in Physics for the observation of gravitational wave with the LIGO instrument network. In this context he has been portrayed as an exceptional genius.



Thorne is an expert in one area of physics just as there are other experts in this area and in other areas. Beyond this, his prominence comes from his association with men like Stephen Hawking, Carl Sagan and Christopher Nolan.

But Thorne's Einsteinesque genius shines through in the LIGO sky. Its inception decades ago, its nurturing all this time, its spectacular recent successes – it was all under Thorne's intellectual helmsmanship. In his own words: "I am a figure of history."

As I have shown, LIGO is a tale of inadequate minds attempting to tackle something beyond their capacity. It is a tale of the grandest and the most abject intellectual quackery in the history of modern physics. It is a tale of Hans the physics community and Franz the media inanely clapping and going "Ve just vant to pump you up."

THERE'S A WHOLE CADRE OF THEM!

BIZARRO
WORLD

TIME100

100 MOST INFLUENTIAL PEOPLE IN THE WORLD

2007



JOHN MATHER

**COBE
FRAUD**

2014



JOHN KOVAC

**BICEP2
FRAUD**

2016



KIP THORNE

**LIGO
FRAUD**

2019



SHEP DOELEMAN

**EHT
FRAUD**

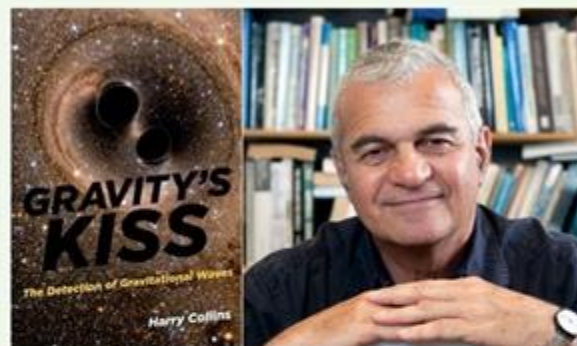
LORD HAVE MERCY!

THE BIZARRO WORLD OF LIGO

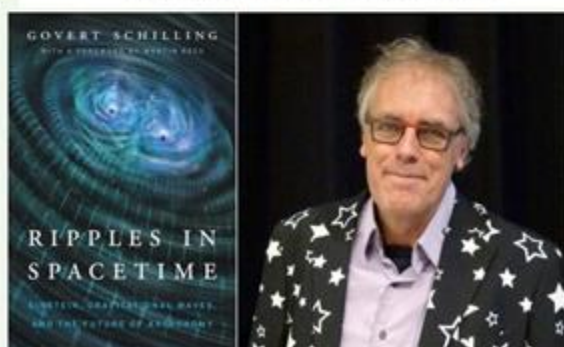
HEROIZING EPICS FROM BIG PUBLISHING HOUSES



***Black Hole Blues* by Janna Levin**
Knopf (2016) \$26.95



***Gravity's Kiss* by Harry Collins**
MIT Press (2017) \$29.95



***Ripples in Spacetime* by Govert Schilling**
Harvard university Press (2017) \$29.95



Einstein's Unfinished Symphony
by Marcia Bartusiak
Yale University Press (2017) \$18

SELF-PUBLISHED BOOK EXPOSES ORGANIZED SCAM

FAKE BABAS OF PHYSICSVILLE

In India some conmen assume the guise of much-trusted holy men (sadhus, babas), and promise to create for you *paiso ki barish* (rain of money; *paiso* = money, *barish* = rain). You bring a suitcase full of hard cash to the fake baba's jungle hideout in the hope he will make double that money rain from the sky for you. The rest you can guess.

The LIGO leaders – the gravitational wave discovery gurus – get your *paiso* via your national coffer. They promise you a firmamental *barish*. Can you guess what will happen next to you? *It's a hard rain's a-gonna fall.*

THE AUTHOR: Bibhas De busts physics gigabuck gigascams. Whether they are conducting this in the high frontier with a NASA satellite, on the white expanse of Antarctica with a coffee-can telescope or in the Louisiana bayou country with a kilometers-long latter-day dowsing rod, he unmasks them. His service to you is *gratis*.



Second Edition: LIGO unravels

UNCHALLENGED PRIVILEGE

The Billion-Dollar Trilateral
Gravitational-Wave
Discovery Scam



An investigative report by

BIBHAS DE

Author of *The Falsifiers of the Universe*

A LITTLE SATIRE

WHEN THORNE AND THE LIGONAUTS MET JASON AND THE ARGONAUTS



From the script of a time-travel sci-fi movie *Passion of Thorne*, destined to be a blockbuster like *Interstellar*: Captain Thorne of the Ligonauts meets Captain Jason of the Argonauts in an alehouse. The two sit together with mugs of grog.

Thorne: Greetings O seafaring man of Golden Fleece fame! We explorers have much in common, for we both negotiate waves.

Jason: Greetings! Who you be?

Thorne: I'm Captain Thorne of timeship Ligosy, a historical figure from the 21st century. I'm famous for riding gravitational waves. Tell me, how rough is the ride in wavy seas.

Jason: That depends on the size of our ship vs the wavelength. When the wavelength is comparable to the size of the ship, things become very unpredictable.

Thorne: For gravitational waves we don't worry about the relative sizes at all. So this should be true for sea waves also.

Jason: Είστε γεμάτοι σκατά!

Thorne: Excuse me!

Jason: Sorry, I lapsed into Greek. It is interesting what you say.

The great voyages of TIMESHIP LIGOSY

CAPTAIN'S LOG, BLACK HOLE EPOCH: – 3.14159265BY

We arrived near the Binary Black Hole System GW00420 in the inspiral stage, had breakfast, turned on our communication link, and identified English-US as our preferred encryption. There came a deep voice from the binary system:

Binary Black Holes: Who that?

Thorne: This is timeship Ligosy from Milky Way Galaxy. I am Captain Thorne, of *Interstellar* fame.

BBH: Well, Cap'n Thorne, as you see, we're kinda busy. Whaddya want?

Thorne: Never mind us. We're here just to observe inspiral, chirp and ringdown.

BBH: Observe away! But be outa here in 11 seconds when the whole shebang's gonna blow. Your ship's gonna shake like cafeteria jello.

Thorne: No problem. Lieutenant Weiss, engage the Time Drive. Take us away to Earthdate 01April2019 so we can join Ligonaut Reitze and his Observational Run O3.

Weiss: Sorry Captain, the Time Drive is malfunctioning. It seems the General Relativity Module's the problem.



A LIGONAUT CROSSES THE GANGES

A ligonaut arrives at the river landing. There's only one dinghy there. The boatman - an old man in unwashed body rags - agrees to take him across for 50 rupees.

The ligonaut feels companionable and starts chatting: "Boatman, do you know how to trick quantum theory?"

The boatman looks vacantly, and eventually manages an answer: "Sahib, we have a Kanti Tewari in our village. But he's only 4 years old. So we don't trick him."

The ligonaut says: "I'd say that something like twenty-five percent of your existence on this earth is to no avail. But can you Fourier-transform a non-periodic time series?"

As the boatman struggles to give an answer, the ligonaut says: "Boatman, something like fifty percent of your existence is to no avail. Tell me if you at least know about coordinate systems in General Relativity."

"Sahib, I am just a simple villager. How would I know any Generals," replies the boatman.

"Then it seems that something like seventy-five percent of your existence is to no avail," says the ligonaut.

By this time a storm that had been gathering turns to gale-force wind. The river swells ominously. Realizing that the boat is about to capsize, the alarmed boatman asks: "Sahib, do you know how to swim in wavy waters?"

The ligonaut says he does not. Then the boatman says with genuine sorrow: "Sahib, it seems that fully one-hundred percent of your existence on this earth is to no avail."

LIGO INDIA TAKING SHAPE

In Hingoli did Kip Thorne
A stately pleasure-park decree:
Where Purna, the sacred river, ran
Through ripples measurable by man
Down to a ringing lea.

Sensing ripples in
Space-Time



Experience LIGO

Visit Us: www.vigyansamagam.in

Follow Us:    

06/05/2019

LIGO CORNUCOPIA

THORNUCOPIA

Two little wiggles made so many jingles:

Two little LIGO wiggles proved in one fell swoop the following long chain of *independent, never-before-proven theses* on Earth and on the sky:

KIP THORNE'S BAKER'S DOZEN

1. Both LIGO mirrors move, in antisynchronicity.
2. Quantum-scale movements in the uncertainty range are measurable macroscopic distances.
3. LIGO is properly calibrated (voltage \rightarrow strain).
4. LIGO input waveform is unnecessary to find.
5. Wave physics limitations do not apply to LIGO.
6. Gravitational waves exist.
7. They stretch/squeeze space tensorially.
8. They move at the velocity of light.
9. They weaken as $1/r$.
10. Idealized black holes exist.
11. Binary black holes exist, spiral, upchirp, and ring down.
12. Black hole merger gives off energy.
13. The energy is gravitational wave.

"A bird does not sing because it has an answer. It sings because it has a song." Chinese proverb

Duty to Inform

A world education message from Bibhas De 01/26/2019

GREAT JUNKYARDS

of human civilization



AIRPLANE GRAVEYARD



SHIP GRAVEYARD



MODERN PHYSICS GRAVEYARD

**(404 stainless steel sheet metal \$90/ton.
Make inquiries at National Science Foundation.
New junkyard opening in India soon;
Go to IUCAA Pune and inquire within.)**

A world education message from Bibhas De 09/06/2017

THE PANTHEON OF PHYSICS FRAUDS

Great scams perpetrated by the physics establishment



**VICTOR
NINOV**



**JAN-HENDRIK
SCHÖN**



**JOHN
MATHER**



**RAINER
WEISS**



**KIP
THORNE**

Q&A

Q: How is a determination of science fraud made?

A: In matters involving public funds, the scientific establishment and their funding agencies have instituted well-crafted policies to determine whether research misconduct (science fraud) has been committed.

Q: Hasn't a determination of science fraud to be made by an *ad hoc* committee or panel formally convened by the scientific establishment?

A: No. Anyone with the necessary expertise can uncover the scientific fault and then show on the basis of the said policies that fraud was committed.

Q: For the above physicists, who made the determination that fraud was committed?

A: In the case of Ninov and Schön, panels/committees convened by their scientific peer determined that fraud was committed. In the case of the others, Bibhas De likewise determined that fraud was committed.

Q: Where is the public documentation to back up these determinations?

A: In the case of Ninov and Schön, the best starting point is Wikipedia. In the case of Mather, read De's book *The Falsifiers of the Universe*. In the case of Weiss and Thorne, read De's book *Unchallenged Privilege*, as well as a chronological record in his blog *The Dreamheron Chronicles*.

Q: Isn't there a requirement that a scientific criticism must first be published in a peer-reviewed journal before proceeding to an allegation of fraud?

A: No. And no such requirement is embodied in the said policies.

Q: But isn't it fair that the charges be first presented as scientific criticism, and the proponents be given a time period to respond without duress?

A: It is fair, and it was done in all of the above cases.

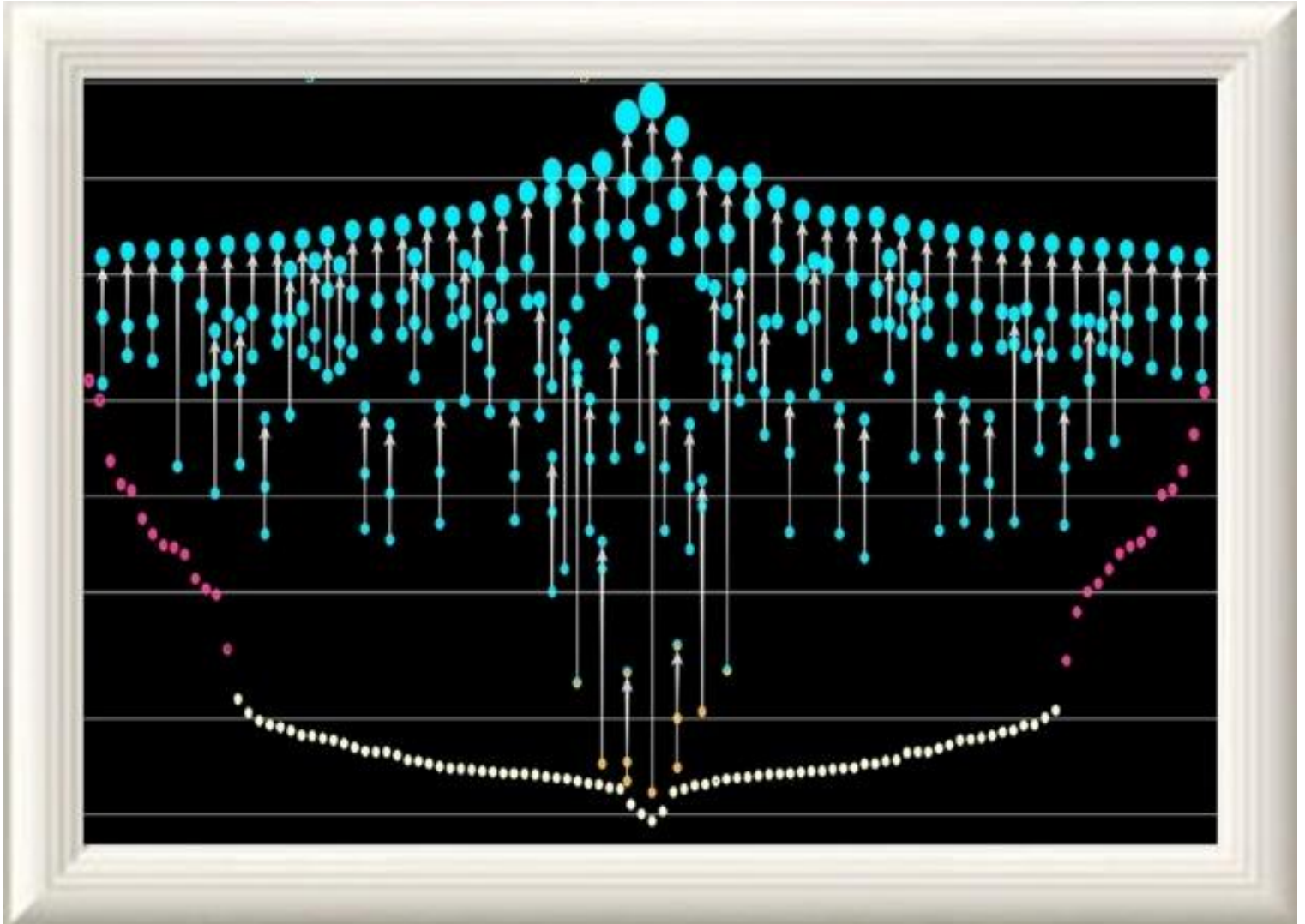
PULLING AT PUBLIC'S HEART STRINGS!

The following picture has been bandied about a lot. In Sweden, Kip Thorne went to sign a Nobel registry and found in it the page Einstein had likewise signed a long-time ago. Kip went all verklempt and had to be consoled. The subliminal suggestion is that Einstein was Kip's intellectual forerunner whose thesis Kip had just verified – most magnificently. The worthy disciple had done the Great Guru proud. It's all propaganda. Kip has no more claim on the Einstein lineage than any other scientists in his field. When you pass off a fraud as a genius, you have to create all kinds of pithy atmospherics about the person to divert attention from his science fault. Who's the real Thorne to me? The movie mogul, the seller of autographs and the peddler nutrition regimens.



THE MASTERPIECE OF MODERN ART

When all is said and done, what did the US taxpayers get after spending one billion dollars over 40 years?



GRAVEYARD OF STARS: IMAGINATION ON UNFETTERED WINGS

Artist: Kip Stephen Thorne (American, 1940 -), Postmodern Pointillism School

Medium: Oil on tar paper

Commissioned by: US National Science Foundation

Cost: Approx. one billion US\$

On loan from the Permanent Collection of the Nobel Foundation

THE HAVOC THEY WREAKED



LIGO Nobelists Barry Barish, Kip Thorne and Rainer Weiss: Three years on since the announcement of their discovery and exposing of the fraud, the world continues to celebrate them.

APOCALYPSE NOW

LIGO is far more than just the grandest fraud in history.

It impacts your national resources: Governments around the world are pumping money into LIGO fraud with great glee.

It impacts your planet: They ripped open pristine mountains in Japan and drilled 200 boreholes in the Deccan Plateau.

It impacts your civilization: An entire body of false knowledge has been and will be installed in the human lore.

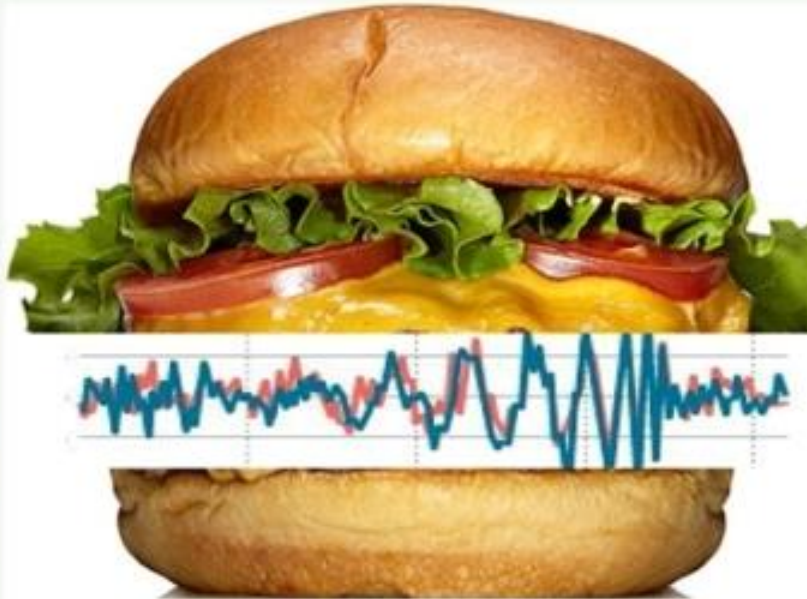
It impacts your children: LIGO fraud is being taken even to remote Indian villages through vigorous public outreach programs and intense social media activity.

It impacts the very idea of truth: They have shackled and manacled your Goddess of Truth and put her in solitary confinement.

A world education message from Bibhas De 02/11/2019

Duty to Inform

GRAVITATIONAL WAVE NOTHINGBURGER



When Kip Thorne of Caltech and Rainer Weiss of MIT shared a hotel room in DC back in the happening seventies, it was **DISCOVERY!** Today, whosoever eats their Discovery Nothingburger goes bonkers and starts discovering right and left. And ol' Pierre starts publishing them discovery papers right and left.

Truly, the crazies of the physics establishment came out of the woodworks. The woodworks of Caltech, Princeton ... that is. There was this genius idea that the LIGO instrument can transmit gravitational waves just as it receives them. It can give as well as it gets! Then there was something about black hole's hair. It needed a barber or something. Then the Indian media went all gaga about using squeeze (sic) light to beat the unsure Heisenberg. There was a deal about gravitational waves and pulsars. And could LIGO go probing Edward Witten's higher dimensions? You bet! And so on and so on.

And each time the crazies came out with a doozy, the baboon's-butt science reporters went ape, singing the paeans of the derivative discoverers.

Imagine that! A piece of total crap instrument made a total crap discovery. And the Brainiacs are piling more brainy crap on the original brainy crap. A whole out-of-control discovery industry has emerged.

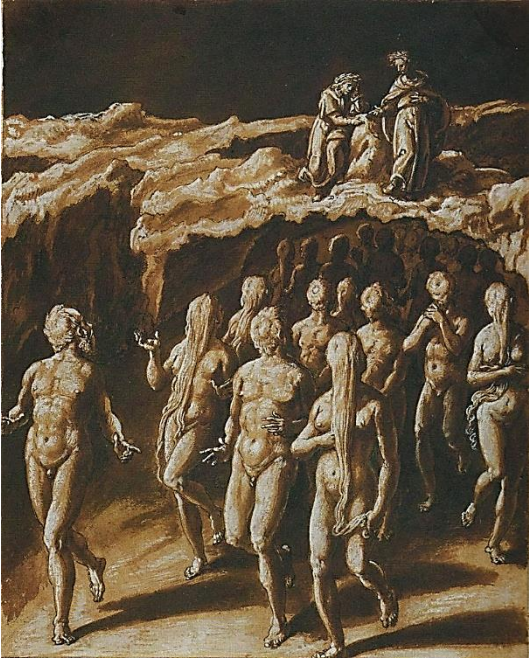
Just goes to illustrate the Latin aphorism: *Merda taurorum animum conturbat.*

Meaning: Bullshit baffles the brain!

LORD HAVE MERCY!

A world entertainment message from Bibhas De 05/16/2017

CLOSING THOUGHTS: EIGHTH CIRCLE OF HELL



The world has adored Kip Thorne since *Interstellar*. Physicists have adored him always. He has become an Albert Einstein, a Carl Sagan and a Christopher Nolan – these fine folks rolled in one. Then draw in the halo of Stephen Hawking.

With his crowning discovery now gone, should that iconic image still endure though?

Thorne does not admit fault, after he has taken the entire human society for a ride. He lacks moral fiber.

He is responsible for the waste of a great deal of resources worldwide. This is ongoing. He needed to apologize for that and stop that. He lacks civic conscience.

If Thorne had nobly accepted the blame upon himself, it might have exonerated to some extent the younger LIGO generations who are continuing to gleefully spin fantasy discoveries, under the aegis of Thorne's authority. They could have picked up the pieces and made a fresh start by now. But Thorne does not release them from this Eighth Circle of Hell. He has no human decency.

Perhaps the images of him with movie/TV folks or selling autographs on eBay or peddling nutrition products more accurately represent the real Thorne.

Kip Thorne is a valuable object lesson to the world's youth, in honor and shame. In the end, all he will be left with are his shekels. Lots of it. Perhaps he has not considered the proverb: *Shrouds have no pockets*.

STATEMENT OF BIBHAS DE

Cosmology criticisms often hinge on abstract or esoteric concepts – often mathematical or arcane – where objectivity and subjectivity mix. There comes in then the issue of consensus. And so on.

All of the above excludes me. My verdict on modern cosmology is entirely based on basic physics and engineering pertaining to the methods of discovery. I don't know a great deal, but what I do know I know pretty well: first-hand and hands-on. I learned from the best.

A second point is that all the scientific faults I have uncovered when I examined them were uncoverable when the discoveries were rolled out, anytime thereafter, and when these were given the Nobel Prize. The faults are actually quite obvious to experts in the field.

So, the very first thing that needs to happen is an indictment of the physics establishment. The second thing that needs to happen is to not believe anymore any tales they tell. They have collectively engaged in deceiving the world. They have not stepped back. They have lost the right to mount any innocent or exonerating defense.

The situation is far worse with the Physics Nobel Prize givers. I do not lightly liken them to Hitler's regime. They are just an intellectual version of it in noble mantle. They need to be STOPPED. And if no one else is going to help, I am going to go it alone, as long as and as far as I can. I want to give something back to the society that trained me with their money. It is as simple as that.

WHY IS PHYSICS FRAUD A CIVILIZATION ISSUE?

The cause of the fall of a civilization occurred when the cultural elite became a parasitic elite.

Arnold J. Toynbee, *A study of History*

The USSR lasted for 69 years. Machu Pichu was occupied for about a hundred years. Women's Suffrage movement in the US lasted about 70 years. These are some short-timescale impacts on human civilization.

Systemic and well-planned fraud in physics commenced in 1965 when the curious Penzias-Wilson observation was passed off as nothing less than the birth pangs of the universe. The organized corruption continues to this day – 55 years and counting. Our science has been denatured, our lore has been falsified, and the children of man are being nurtured on a steady regimen of dirty lies.

The physics elite ushered in a moblike culture in their ivy-walled world. The Dons wanted to assure themselves the attainment of fame and fortune – on their own terms.

So, grand lies have been installed as genius science through raw establishment power. Dissidence gets no traction at all. We are at a decision point. The ice zombies have breached the Wall. We need to use the dragonglass spear, now.

FAKE BABAS OF PHYSICSVILLE

In India some conmen assume the guise of much-trusted holy men (sadhus, babas), and promise to create for you *paiso ki barish* (rain of money; *paiso* = money, *barish* = rain). You bring a suitcase full of hard cash to the fake baba's jungle hideout in the hope he will make double that money rain from the sky for you. The rest you can guess.

The LIGO leaders – the gravitational wave discovery gurus – get your paiso via your national coffer. They promise you a firmamental barish. Can you guess what will happen next to you? *It's a hard rain's a-gonna fall.*



THE AUTHOR: Bibhas De busts physics gigabuck gigascams. Whether they are conducting this in the high frontier with a NASA satellite, on the white expanse of Antarctica with a coffee-can telescope or in the Louisiana bayou country with a kilometers-long latter-day dowsing rod, he unmasks them. His service to you is *gratis*.



Second Edition: LIGO unravels

UNCHALLENGED PRIVILEGE

The Billion-Dollar Trilateral
Gravitational-Wave
Discovery Scam



An investigative report by

BIBHAS DE

Author of *The Falsifiers of the Universe*

from 9. Concluding remarks

Over the past several years I have investigated and reported on a number of grand scams in physics, perpetrated mostly in the murky frontier land of cosmology. But in doing so I have sensed, slowly and flittingly, the shaping of a longer-term trend. That trend is towards a denaturing of science by entrenching in it false elements through raw establishment power and highly clever machinations. This is a historical decline of the scientific civilization, unfolding before our eyes. We are watching our doom engulf us in real time. It is as though we are in a trance. We are lying languidly on faded opium divans in squalid dens and watching phantasmagoric razzmatazz playing out before us.

LIGO DISSIDENCE IN HISTORICAL CONTEXT

WHY SO HARSH, BIBHAS DE?

LIG



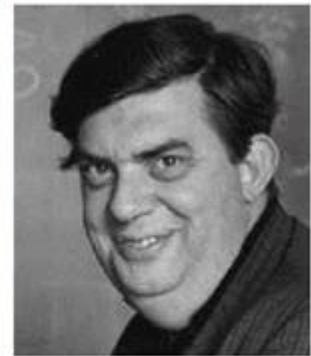
Hannes Alfvén



Fred Hoyle



Halton Arp



Geoffrey Burbidge

LIGO is cosmology, and cosmology dissidence is nothing new. Looking at past dissidence can give us a realistic sense of what will come from LIGO dissidence. Nothing likely will. LIGO will likely go great guns for as long as the LIGO powerbrokers want. I do not let this outcome deter me, but see the need to change tactics.

The men you see above were all prominent scientists and solid academics. Alfvén was my teacher, and Burbidge I knew from being at UCSD. They had their own different ideas about the origin of the universe. What they had in common was that they were all Big Bang dissidents. They exerted themselves strongly, but within the bounds of academic form. In the end they all failed. They died with the despairing knowledge that Big Bang is unstoppable. This is sad. The scientific establishment was complicit against them. Big Bang is a scientific fraud – intricate and intertwined fraud. Because it consumes public money, it is also criminal fraud. So we are dealing with a crime family of Physicsville: *The House Gamow*.

This is how LIGO is also shaping up to be: *The House Thorne*. What I am doing new is to take the matter outside the sphere of polite scientific debate, and to public officials responsible for public money. The other thing new I am doing is using the stark language of public accountability and the effective language of public communication. I am dismantling the carefully concocted images of infallible temple gods, and showing them up for what they are.